

INSTALLATION AND OPERATION MANUAL

SANYO

DVD Receiver with 7-inch LCD Monitor

Part No.: **AVC-100**

We would like to take this opportunity to sincerely thank you for purchasing this product.

- Read this manual and the warranty certificate carefully prior to using the unit. After having completely read this manual, store it in a safe place for easy reference.
- Make sure to read the “Safety precautions” and “Cautionary items for proper usage” appearing within this manual.



SANYO Electric Co., Ltd
Printed in Japan
2RR6P10A53801



CONTENTS1

TIPS ON HOW TO READ THIS MANUAL.....3

INSTALLATION MANUAL6

ACCESSORIES.....7

TO CONNECT THE PARKING BRAKE CONNECTOR CABLE.....8

CONNECTION.....10

BEFORE INSTALLATION12

INSTALLING THE UNIT.....13

REMOVING THE UNIT.....15

INTRODUCTION16

SAFETY PRECAUTIONS17

CAUTIONARY ITEMS FOR PROPER USAGE21

MAIN FEATURES22

ABOUT DISCS24

RESETTING THE UNIT.....27

OPENING UP/CLOSING THE MONITOR.....28

ADJUSTING THE MONITOR AHEAD29

ADJUSTING THE MONITOR.....29

TILTING THE MONITOR AHEAD30

DETACHING/ATTACHING THE FRONT PANEL31

SHUTTING DOWN32

ABOUT THE REMOTE CONTROLLER33

COMPONENT NAME OF THE UNIT34

COMPONENT NAME OF THE REMOTE CONTROLLER35

INSERTING/REMOVING A DISC36

HOW TO ADJUST THE VOLUME37

TO SWITCH FROM THE OTHER SOURCES37

COMMON FUNCTIONS.....38

SETTING THE SOUND QUALITY39

SETTING FRONT/REAR MODE.....41

SETTING THE DISPLAY42

CD/MP3/JPEG OPERATION44

CD

TO START PLAYBACK.....45

VARIOUS PLAYBACK FUNCTIONS45

MP3

ABOUT MP3.....48

TO START PLAYBACK.....49

VARIOUS PLAYBACK FUNCTIONS49

JPEG

TO START PLAYBACK.....52

VARIOUS PLAYBACK FUNCTIONS52

DVD OPERATION56

TO START PLAYBACK.....57

VARIOUS PLAYBACK FUNCTIONS57

SWITCHING THE SUBTITLE LANGUAGE.....60

SWITCHING THE AUDIO LANGUAGE.....61

CHANGING THE ANGLE61

PLAYBACK FROM THE SELECTED POINT62

USING THE MENU ON DVD.....63

CHANGING THE DVD SETTING.....64

FM/AM/TV OPERATION72

FM / AM

LISTENING TO THE RADIO.....73

STORING RADIO STATIONS.....74

USING THE DX MODE76

SWITCHING FM RECEPTION TO MONAURAL76

TV

WATCHING TV/TV COLOR SYSTEM SETTING77

STORING TV STATIONS.....79

AUX OPERATION82

TO USE AUX FUNCTION83

OTHER86

REPLACING THE FUSE.....87

CLEANING THE CONNECTORS87

TERMINOLOGY88

MAIN SPECIFICATIONS89



TROUBLE SHOOTING90

WHEN THIS MESSAGE APPEARS...94

DEFAULT SETTINGS LIST95

TIPS ON HOW TO READ THIS MANUAL

This manual uses the following marks to call the user’s attention. The meaning of each mark is provided below. Please make sure you understand these prior to reading the manual.

Hint	Keep this hint in mind when using the unit. It may be useful later on to help you operate it skillfully.
	Indicates title names and page numbers for easy reference.
	Displays Touch Panel operations on the screen.
:	Describes operation results.
<	This symbol denotes that the operation procedures are divided.

CAUTIONARY ITEMS FOR PROPER USE

- **Operating the unit**
 - Avoid operating the unit while driving. First stop the vehicle and then proceed.
- **Installing the unit**
 - Install it properly as per the instructions appearing in this manual.
(The unit is designed to render complex imaging such as videos impossible while driving. Do not under any circumstance reconfigure the wiring or perform any improper conversions to the unit.)

■ This unit utilizes the following 3 technologies to playback DVD videos:

Macrovision

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

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* Design and specifications are subject to change without notice.



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INSTALLATION MANUAL

ACCESSORIES.....7

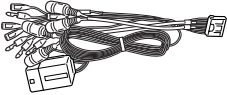
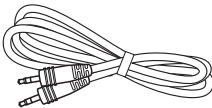




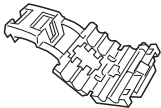
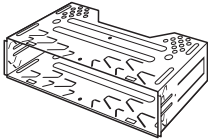
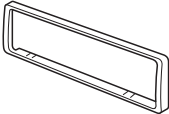
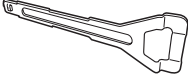


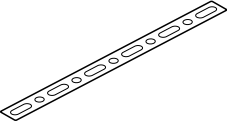

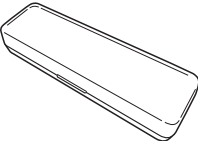
TO CONNECT THE PARKING BRAKE CONNECTOR CABLE8

CONNECTION.....10

BEFORE INSTALLATION12

INSTALLING THE UNIT13

REMOVING THE UNIT.....15

Power supply cable	AV cable	AV cable adapter	Screw ① (M5)
			
x1	x1	x1	x4
Screw ② (M5)	Screw ③ (M4)	Self-lock connector	Sleeve
			
x4	x4	x2	x1
Outer trim ring	Release key	Tapping screw (M5 x 12)	Hexagonal bolt with washer (M4 x 6)
			
x1	x2	x1	x1
Metal strap	Remote controller	Front panel case	
			
x1	x1	x1	

CAUTION

- Follow local rules and regulations for installing monitor.
- Please contact your place of purchase if you have any questions about installation or connection.

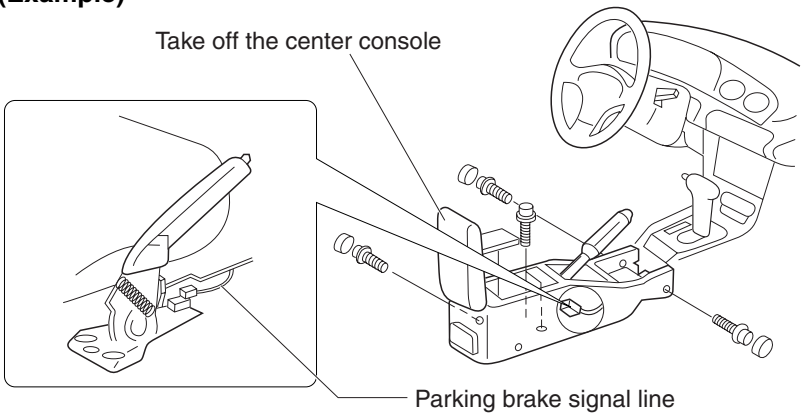
TO CONNECT THE PARKING BRAKE CONNECTOR CABLE (1)

Operation while driving is very dangerous. To protect customer safety, the operations while driving are restricted. In order to judge driving or stopping, connect the parking brake connector cable. If parking brake connector cable is not connected correctly, operations will be restricted while stopping as well as driving.

* The parking brake signal line position varies depending on the vehicle model. Ask your auto dealer for details.

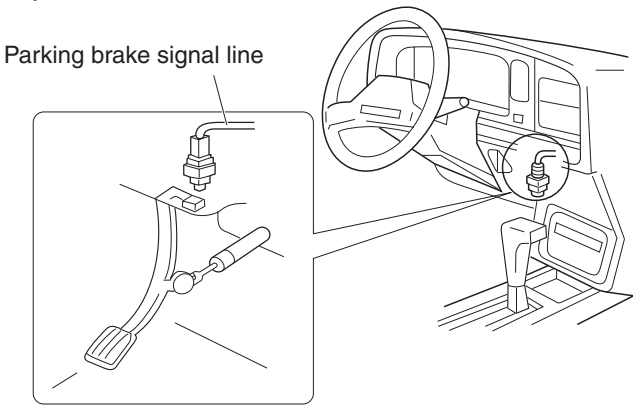
●When a parking brake is a hand brake type

(Example)



●When a parking brake is a foot brake type

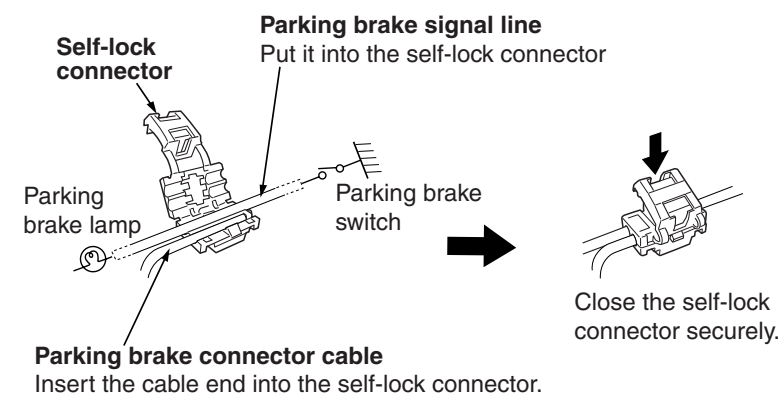
(Example)



TO CONNECT THE PARKING BRAKE CONNECTOR CABLE (2)

●Using the self lock connector.

(Example)



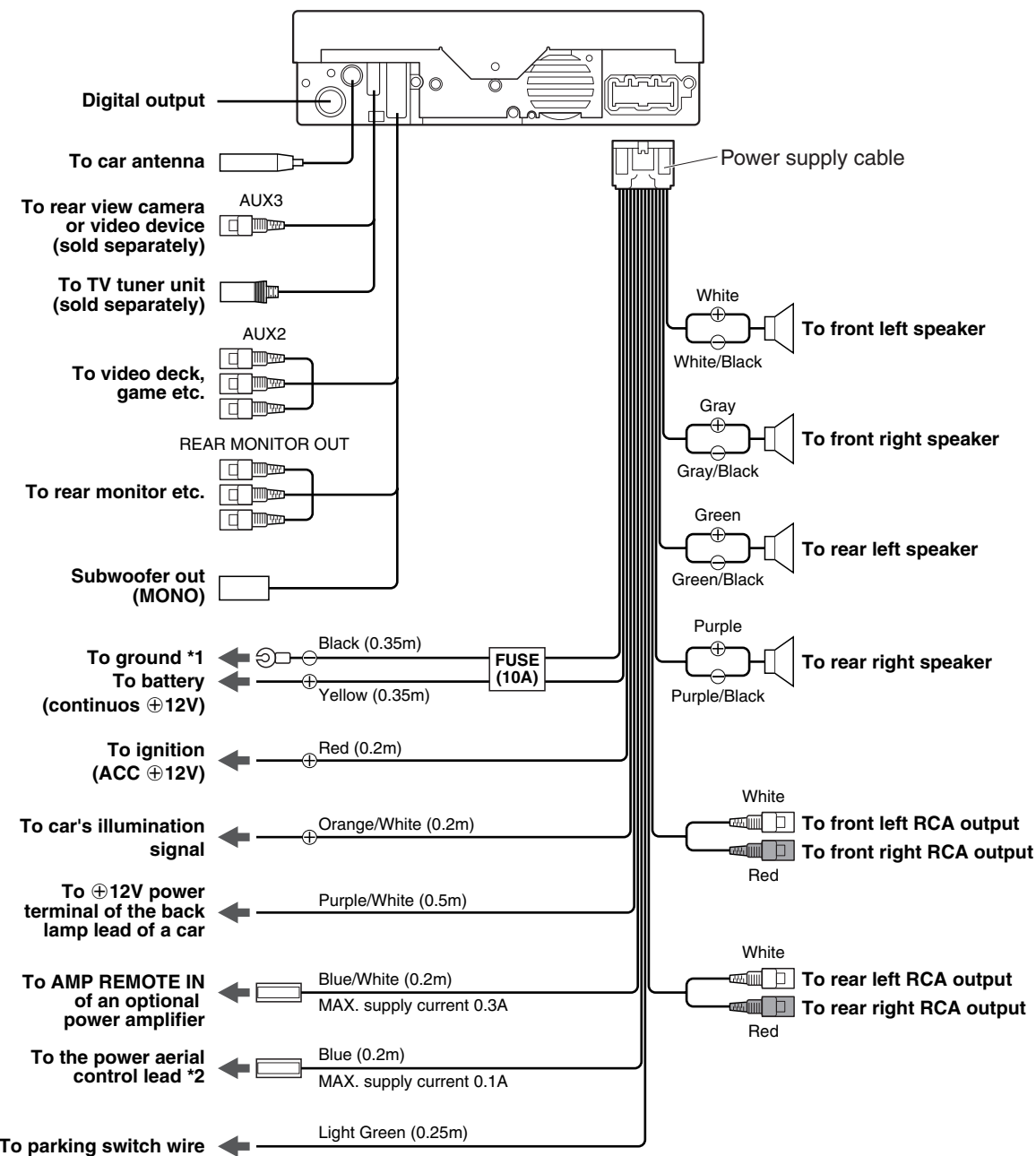
CAUTION

When you connect the parking brake connector cable, set the parking brake and stop the engine.
Car may move and an accident may result.

Hint

- The TV/video signals appear only after you park the car and set the parking brake. When the car starts moving, the TV/ video signals automatically disappear for safety reasons.
- If the parking brake signal line is too thin, connect the parking brake connector cable to the parking brake signal line directly without using the self-lock connector.
- After finish attachment and connection, please check whether brake lamps, back lamps, horn, and blinkers operate correctly.

CONNECTION (1)



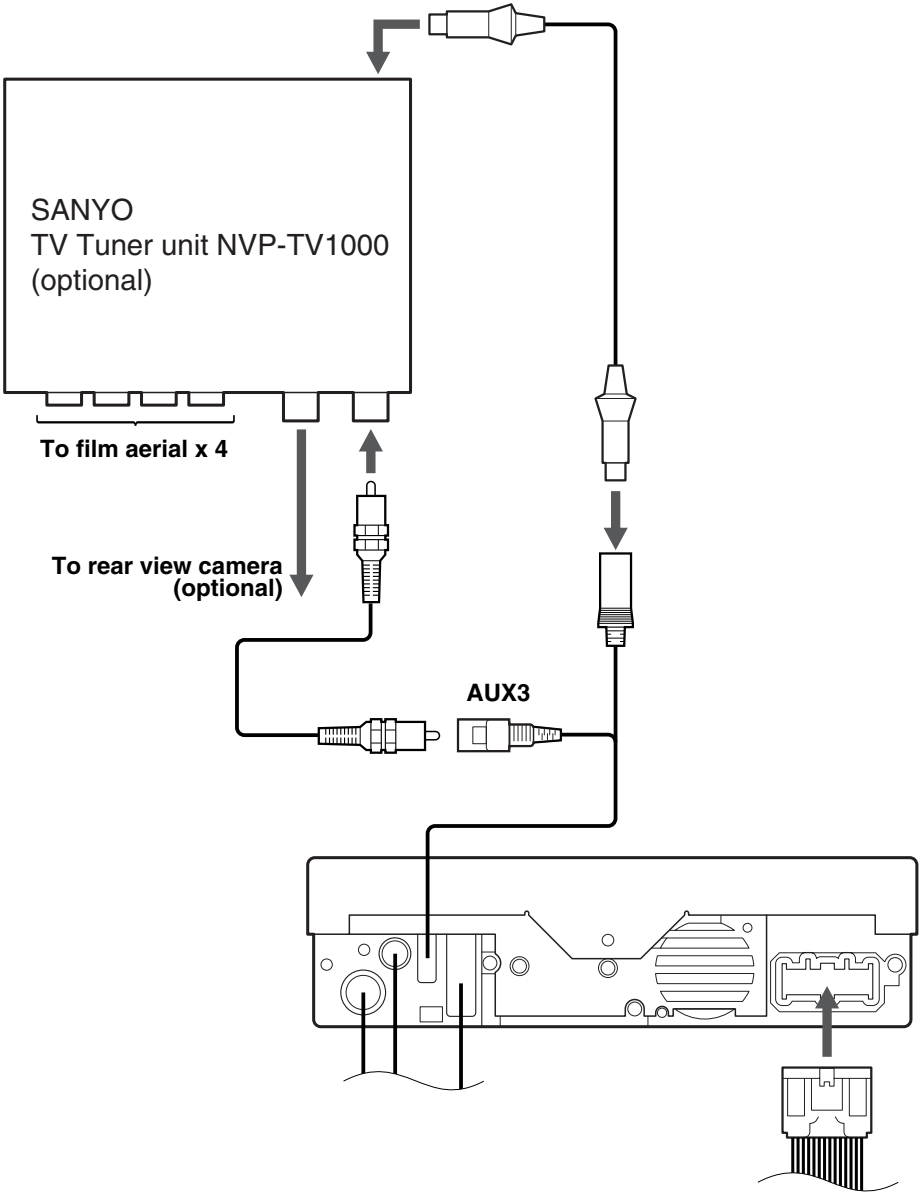
*1. First connect the black ground lead, then connect the yellow and red power input leads.

*2. Depending on what antenna you are using, connect either to the control terminal of the motor aerial, or to the power terminal for the booster amplifier of the film-type antenna.

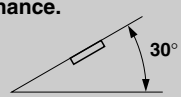
Note:

If there is no accessory position (ignition ACC 12 V red wire), connect to the +12 V power (continuous 12 V yellow wire) terminal which is energized at all times.

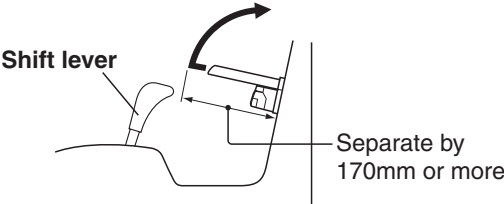
CONNECTING WITH OPTIONAL TV TUNER UNIT



CAUTION

- When installing the unit, close the monitor and set the ignition key to OFF first.
 - Choose the mounting location where the unit will not interfere with the normal driving function of the driver, and where not to block access to the hazard switch, an air-conditioning outlet or other important controls.
 - Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.
 - Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
 - Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
 - Install the unit where it does not get in the driver's way and cannot injure the passenger if there is an emergency stop.
 - If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.
- 
- 30°
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

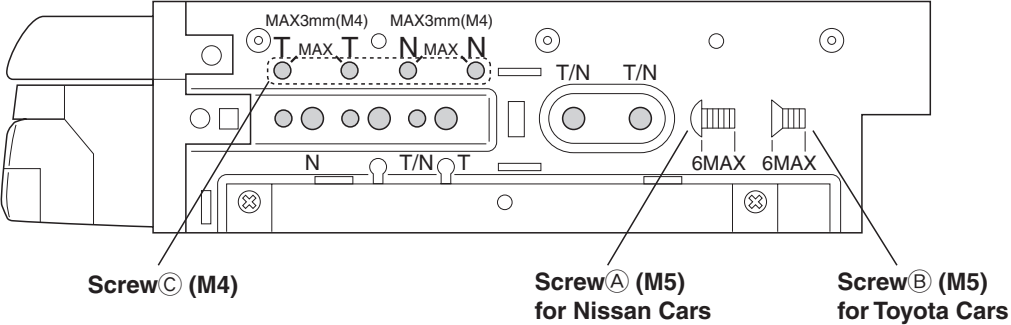
- For proper opening and closing of the monitor, a clearance of at least 170 mm must be needed between the closest position of the shift lever and the mounting surface for the unit.



* Make sure that there is no obstruction to driving operation.

When installing in Japanese-Made Cars

- Align the holes in the unit on each side with the vehicle mounting bracket, and secure the unit with the accessory screws.

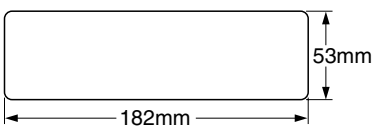


T: Toyota cars
N: Nissan cars

INSTALLING THE UNIT

INSTALLATION OPENING

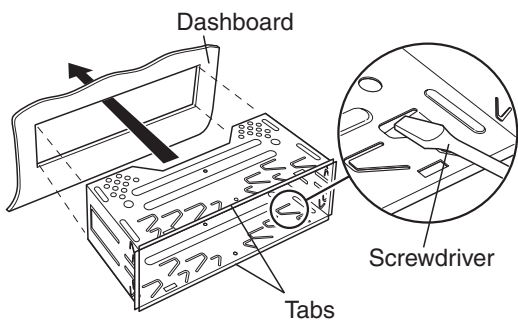
This unit can be installed in any dashboard having an opening as shown below:



INSTALLING THE UNIT

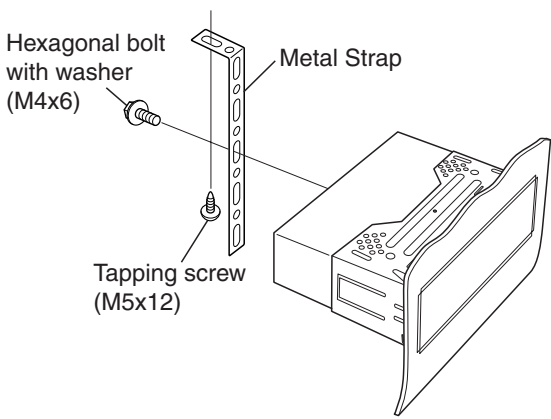
Be sure you test all connections first, and then follow these steps to install the unit.

- 1 Make sure the ignition is turned off, and then disconnect the cable from the vehicle battery's negative (-) terminal.
- 2 Disconnect the wire harness and the antenna.
- 3 Mount the sleeve by inserting the sleeve into the opening of the dashboard and bend open the tabs located around the sleeve with a screwdriver. Not all tabs will be able to make contact, so examine which ones will be most effective. Bending open the appropriate tabs behind the dashboard to secure the sleeve in place.

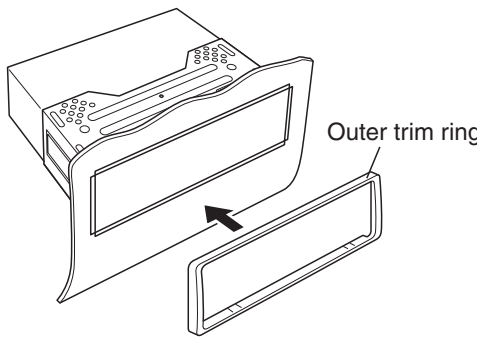


- 4 Reconnect the wire harness and the aerial and be careful not to pinch any wires or cables.
- 5 Slide the unit into the sleeve until it clicks and locks into place.

- 6 To further secure the unit, use the supplied metal strap to secure the back of the unit in place. Use the supplied hardware (Hexagonal bolt with washer (M4 x 6)) to attach one end of the strap to the hole (M4 x 6 MAX) on the back of the unit. If necessary, bend the metal strap to fit your vehicle's mounting area. Then use the supplied hardware (Tapping screw (M5 x 12)) to attach the other end of metal strap to a solid metal part of the vehicle under the dashboard. This strap also helps ensure proper electrical grounding of the unit.

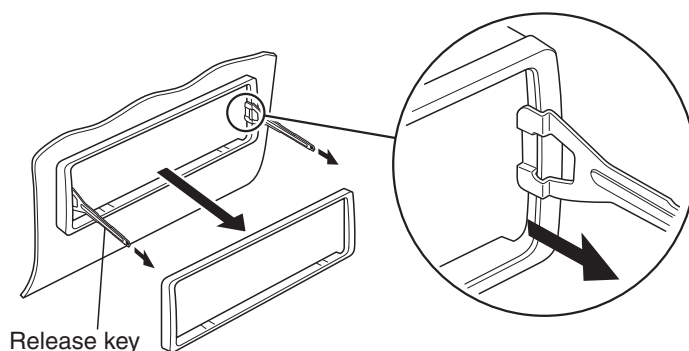


- 7 Reconnect the cable to the vehicle battery's negative (-) terminal. Then place the outer trim ring.

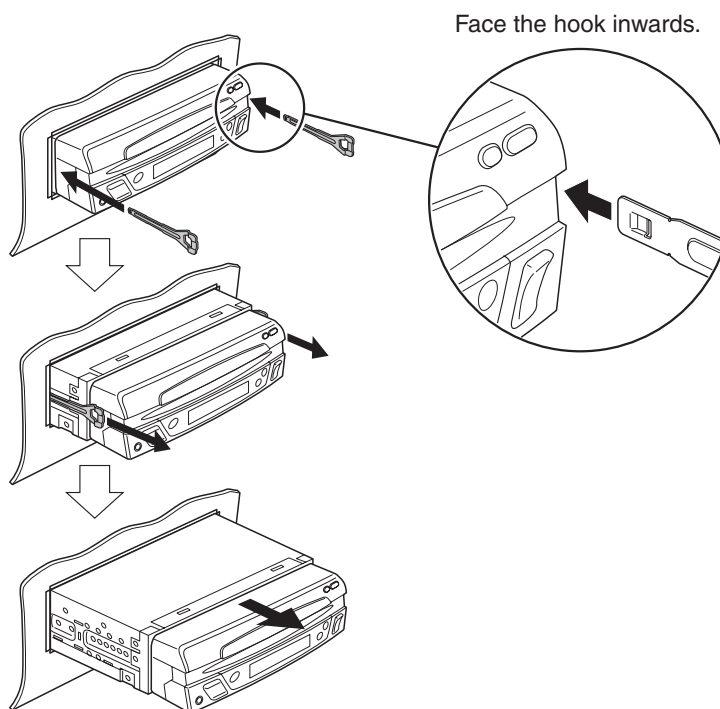


REMOVING THE UNIT

- 1** Make sure the ignition is turned off, and then disconnect the cable from the vehicle battery's negative (-) terminal.
- 2** Remove the metal strap attached the back of the unit (if attached).
- 3** Engage the release keys with the outer trim ring, then pull the release keys to remove the outer trim ring.



- 4** Insert the release keys into the slots at the middle left and right sides of the unit until they click, then pull the unit out of the dashboard.



INTRODUCTION

SAFETY PRECAUTIONS	17
CAUTIONARY ITEMS FOR PROPER USAGE	21
MAIN FEATURES	22
ABOUT DISCS	24
RESETTING THE UNIT	27
OPENING UP/CLOSING THE MONITOR	28
ADJUSTING THE MONITOR AHEAD	29
ADJUSTING THE MONITOR	29
TILTING THE MONITOR AHEAD	30
DETACHING/ATTACHING THE FRONT PANEL	31
SHUTTING DOWN	32
ABOUT THE REMOTE CONTROLLER	33
COMPONENT NAME OF THE UNIT	34
COMPONENT NAME OF THE REMOTE CONTROLLER	35
INSERTING/REMOVING A DISC	36
HOW TO ADJUST THE VOLUME	37
TO SWITCH FROM THE OTHER SOURCES	37

SAFETY PRECAUTIONS (1)

- To ensure proper usage of the unit, read this instruction manual prior to use.
 - After having read it, keep in a safe place for quick reference.
- Indications appearing both in this manual as well as on the unit itself contain cautionary items to ensure that the unit is used safely in order to prevent the operator or others nearby from being harmed or injured.

⚠ WARNING: The message following this symbol involves the likely possibility of serious injury or even loss of life.

⚠ CAUTION: The message following this symbol involves the possibility of injury or material damage.

The content of warning messages may also depicted as illustrations.

⚠ : ⚠ This symbol is for caution. The following illustration will contain a specific caution message (the figure on the left is a common example).

🚫 : 🚫 This symbol is to prohibit certain actions by the operator. The following illustration will contain a specific warning message (the figure on the left prohibits dismantle).

❗ : ❗ This symbol is to indicate certain actions for the operator. The following illustration will contain a specific message (the figure on the left is a common example).

⚠ WARNING

🚫 Do not place or install the unit in an area that would hinder the view of the road, obstruct driving operations (such as steering, shifting or breaking), or pose a danger to passengers. Otherwise, traffic accidents or injury may result.	
❗ If the unit is installed in the chassis with making halls, please confirm the positions of pipes, tanks, and the electric wirings, etc. and not let the unit to interfere and contact with them. Fires may result.	
🚫 Do not use bolts and nuts of security parts such as steering, brake systems and tanks when ground. Accidents or fires may result.	
❗ Keep small articles out of the reach of children. Accidents may result.	
❗ Remove the ⊖ terminal of the battery while wiring. Electric shocks and injury by a short-circuit accident may result.	
❗ Put the codes together so as not to hinder driving. It is dangerous when coiling around steering, shift lever, or brake, etc.	
🚫 Do not touch the TV antenna and monitor at the same time during storms. You may get an electric shock.	
🚫 Use only the specified power source (shown on the right). Do not use with a 24V vehicle battery (truck, bus). This may cause fires or electric shocks.	

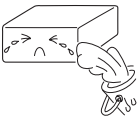


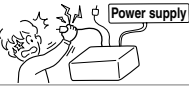



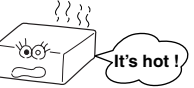
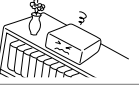
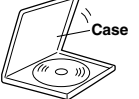

⚠ WARNING


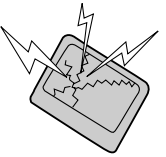
🚫 Do not operate the unit or replace discs while driving. Do so only after having stopped the vehicle in a safe place. Otherwise, traffic accidents may result.	
❗ Stop the vehicle in a safe place when the driver watches DVD etc. Accidents may result.	
🚫 Do not use the unit if malfunctions occur such as if no image is displayed or if no sound is emitted. Accidents, fires or electric shocks may result.	
❗ In the event of foreign object infiltration into the unit, water or beverage splashing onto the unit, smoke or a strange smell coming from the unit or other abnormality, immediately stop using the unit and consult the place of purchase. Using the unit after such occurrences may cause accidents, fires or electric shocks.	
❗ Exercise caution so as not to let the unit get wet nor let water infiltrate into the unit. Fires or electric shocks may result.	
🚫 Do not cut the plastic sheath of the lead wire and taking the power supply from other equipment. It exceeds the current capacity of lead wire, and fires and electric shocks may result.	
❗ Confirm all electrical equipments such as brake lamps, lights, horn, wipers, and wipers move correctly after installation and wiring finished. Traffic accidents may result.	
🚫 Do not dismantle or remodel the unit. Accidents, fires or electric shocks may result.	
❗ Use the fuse of regulated capacity (amperage) when you exchange fuses. Using the fuse whose capacity is more than regulated may cause fires.	
🚫 When you connect the rear view camera: Do not back up the vehicle while watching only the video screen. Driver must look carefully in the direction the vehicle is moving in addition to using rear view mirrors and this device.	

⚠ CAUTION

🚫 Professional skill and experience are necessary for installation and wiring for the unit. Please ask the place of purchase for safety.	
❗ Use attached parts and install according to the manual. Do not use the parts other than specified. Damage to the internal parts of the main unit may result, and the unit cannot be fixed firmly.	

SAFETY PRECAUTIONS (2)

⚠ CAUTION		
⚠	Do not place or install the unit in areas where rain is blown in by the wind or in areas prone to water splashes, humidity or dust. Water, humidity or dust infiltrating the unit may result in smoke emissions or fires.	
⊘	Do not place the unit on unsteady or inclined surfaces. It may fall resulting in injury.	
⊘	Do not close the vent or the heat sink of the unit. It may cause fires by generating heat inside the unit.	
⚠	Wire correctly according to the manual. If a correct connection is not done, fires or accidents may result.	
⚠	Connect the power supply codes (red code and yellow code) at the end of the wiring. Electric shocks and injury may result by a short-circuit accident.	
⊘	Do not make the ⊖ line of right and left speakers a common line and do not ground to the chassis. Electric shocks and injury may result by a short-circuit accident.	
⚠	Do not let wire get caught in chassis, screw parts or seat rails etc. Accidents, electric shocks or fires may result by disconnecting or short-circuit.	
⚠	Be sure to insulate any loose unconnected wires with electrical tape for safety.	
⊘	Do not put a foreign object into the disc insert aperture. Fires or electric shocks may result.	
⊘	Do not close your fingers to the operation panel while it is opening and closing. Injury may result.	
⊘	Do not put your fingers into the disc insert aperture. Injury may result.	
⊘ Do not touch	Do not touch the heat sink or the amplifier on the back side of the unit while the power supply is turning on or immediately after turning off the power supply. Burns may result.	
⊘	Do not use the unit for other than automobiles. Electric shocks or injury may result.	
⚠	Take out the disc when the unit is not used. Do not leave a disc put into the unit for an extended period. Damaging a disc may result because of high temperatures.	
⊘	Do not use the unit for an extended period with the engine turned off. It may lead to weakening of the battery.	

⚠ CAUTION		
⚠	Enjoy watching the unit at a suitable sound level. High volumes may damage your hearing and, because exterior sounds become muffled, traffic accidents may result.	
⊘	Do not press on the liquid crystal panel with excessive force or expose it to impacts. The liquid crystal panel glass may crack resulting in injury.	
⊘	Should the liquid crystal panel crack, do not come into contact with the liquid coming from the interior of the panel. This may lead to inflammation of the skin. <ul style="list-style-type: none">• Should the liquid be accidentally ingested, see a doctor immediately.• Should the liquid get into the eyes or onto the skin, wash out with a large amount of water and see a doctor immediately.	
⚠	Follow local rules and regulations for installing monitor and TV antenna.	

CAUTIONARY ITEMS FOR PROPER USAGE

ABOUT THE TEMPERATURE

The unit may not function properly in extreme cold or extreme hot conditions. Bring the ambient temperature back to normal to ensure proper operation.



ABOUT CONDENSATION

During raining days, when the humidity level is high or immediately after having turned on the heater in cold temperatures, condensation (water drops) may form on the optical lens inside the unit. Using the unit in this condition may result in laser malfunction rendering normal operation impossible. Results may depend on the ambient environmental conditions, however, the condensation will evaporate and normal operation will be possible after removing the disc and leaving the unit unused for roughly 1 hour.

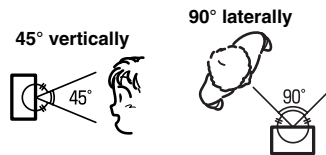
ABOUT VIBRATIONS

Exposing the unit to vibrations may result in the following conditions:

- Sound and image disturbance, however, both return to normal when vibrations cease.

ABOUT THE DISPLAY

- Direct sunlight will cause the display to blacken due to reflection of the sunrays. Avoid direct sunlight.
- The display is best viewed from directly in front of the unit. Watch the screen within a 45° angle vertically and a 90° angle laterally from the unit.
- Red and blue points of light may appear in the display. This is normal for a liquid crystal display and does not mean the display is damaged.
- The display uses a small fluorescent tube as a backlight for liquid crystals. If the screen goes black and does not light up, consult the place of purchase.



ABOUT USING THE UNIT WITH THE VEHICLE ENGINE TURNED OFF

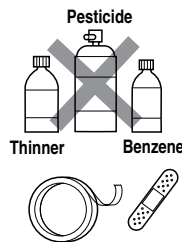
Using the unit when the vehicle engine is turned off may lead to weakening of the battery. Do not use the unit for an extended period with the engine turned off.

Using the unit when the vehicle engine is turned off, and the engine is started, it may return to the initial screen display by the voltage's dropping.



ABOUT CLEANING

- Dust easily adheres to the screen necessitating periodical cleaning. When cleaning, cut off the power supply and wipe the screen with a soft cloth. Do not use a wet cloth and do not rub the screen with a hard object or hit the screen.
- Applying benzene, thinner, pesticides or other volatile substances to the cabinet or panel may lead to their infiltration into the surface. Do not use these substances. Also, applying cellophane tape, band-aids or other adhesive object will result in soiling and damage to the cabinet or panel. Avoid applying these objects.



Please be advised that SANYO will not assume any responsibility whatsoever for any troubles arising from mishandling the unit as a result of not following the cautionary items described within this manual. The unit is not guaranteed for troubles arising from improper handling or using the unit in a way contrary to conventional wisdom.

MAIN FEATURES (1)

7-inch wide screen

7-inch thin-film transistor (TFT) touchscreen LCD display (336,960 pixels) shows the best picture performance on the wide screen with features high-contrast and quality.

Touchscreen controls

The device incorporates user-friendly touchscreen interface. The device comes with a remote controller.

Multimedia playback

The device offers multimedia features such as audio and video playback, supporting DVD, DVD-R/RW, DVD+R/RW, CD, CD-R, CD-RW. Multi-entertainment is available in one device.

- DVD-RW: compatible with video mode and VR mode (various editing available)
- DVD+RW: compatible with video mode and +VR mode (various editing available)

Easy-to-use touchscreen

When you touch the screen, while playing a DVD disc, the operation menu for DVD appears on the screen. This easy-to-use touchscreen allows you various operations like playback, chapter selection, still image, repeat, fast-forward, fast-backward, search.

Screen mode switchover system

The display has 4 screen modes: NORMAL mode (4 x 3 screen), FULL mode (16 : 9 screen), WIDE mode, and CHINEMA mode. This offers flexible options for the best screen size of the image.

Audio systems

- Loading high power amplifier, which offers outstanding digital sound quality. The menu of audio control appears on the screen.
- Loading 7-band/7-mode Equalizer system, which incorporates customer-mode. This system expands versatility to match your preferences for how the music should sound and memorize them.

DVD/CD/MP3

- **Multi-voice function*1**
Switch to the desired audio language and enjoy the show.
 - **Multi-subtitle function*1**
Switch to the desired subtitle and enjoy the show.
 - **Multi-angle function*1**
Switch the angle for DVD videos with multiple recorded angles and enjoy the show.
- *1 Depending on the disc, the function may be prohibited.
- **Repeat function**
You can enjoy your favorite song or scene repeatedly.
 - **Shuffle function**
Enables a CD or MP3 to be played back randomly until all the tracks have been played through.

MAIN FEATURES (2)

AM/FM

Built-in AM/FM radio. With a total of 30 station presets (12AM + 18FM), ATP (Auto Travel Presets), which automatically tunes in on the station with the best reception, allows you smooth tuning while driving.

AUX

You can enjoy the sound/image of audio/video devices (optional) through the unit.

Dual play function

- You can simultaneously enjoy a separate sound/image in this unit and auxiliary audio/video equipment in the rear.
- The audio and visual-oriented unit can provide multi in car entertainment to passengers in the backseat.

Rear view camera tuner provided

When the shift lever is into reverse, the display of the unit is changed into a rear view camera image if the commercially available rear view camera is connected.

Full auto in-dash screen

Opening and closing of the screen is fully automatic with a simple push of a button operation. The tilt angle memory enhances the visibility and user-friendliness. Moreover a built-in detachable control panel under the face panel monitor works as an antitheft device.

ABOUT DISCS (1)

DISCS THAT CAN BE PLAYED BACK USING THE UNIT



■ The following discs cannot be played back.

- 3 inch (8 cm) disc
- DVD-RAM
- CD-ROM (the data other than the MP3 or JPEG files)
- VSD (Video single disc)
- CD-G
- Photo CDs
- CD-Extra (data only)
- Mixed CD
- Video CDs
- WMA
- Active Audio (data only)
- SVCD (Super Video CD)
- SA-CD (Super Audio CD)
- DVD+R (dual layer)
- DVD-Audio
- DVD-ROM (the data other than the MP3 or JPEG files)
- CDF
- CPRM
- CDV
- CDs with copy protection function (copy control CDs)
- Any DVD video disc whose region number that does not correspond with the unit.

■ CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW playback may not be possible due to the following:

- The disc does not contain any stored data.
- Playback may not be possible depending on the condition of the disc itself or the stored data on the disc.
- Playback may not be possible depending on the level of compatibility between the disc and this unit.
- Playback may not be possible depending on the recorder used for recording the data.
- Playback is impossible for non-finalized discs.

* If using a writable disc such as those listed above, please read the instruction manual and cautionary items for the device used to write on the disc.

Finalizing discs

If using a CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW disc, it is necessary to finalize the disc using the device used to the write on the disc. Otherwise, playback will be impossible using any player (such as this unit) other than the device used to record the data.

* Please read the instruction manual and cautionary items for the device used to write on the disc when finalizing discs.

* DVD-RW, DVD+RW: Video mode must be finalized.


■ Some playback operations of DVDs may be intentionally set by software producers. Since this unit plays DVDs according to the disc contents the software producers designed, some playback features may not be available. Refer to the instruction manual with the DVDs.

■ About specially shaped discs

Do not use specially formed discs such as heart-shaped or hexagonal discs with this unit. These may not only damage the unit but, when ejecting the disc, it may fly out and cause injury due to its high speed rotation.

ABOUT DISCS (2)

■ About copy protected CDs (copy control CD)

Use CDs that conform to CD Disc standard such as those with the CD logo  mark printed on its label.

Using a CD with a copy protected function configuration whose purpose was to prevent computer aided reproduction may not playback normally. This is not due to a malfunction of the unit but rather to a phenomenon that occurs due to the lack of conformity of copy protected CDs (copy control CD) to CD standards. Should problems occur with the playback of copy protected CDs (copy control CD), consult the place of purchase.

ABOUT REGION NUMBERS

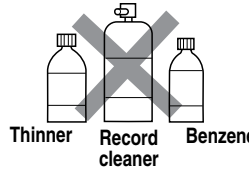
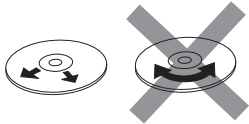
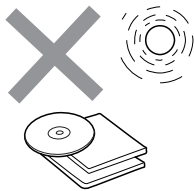
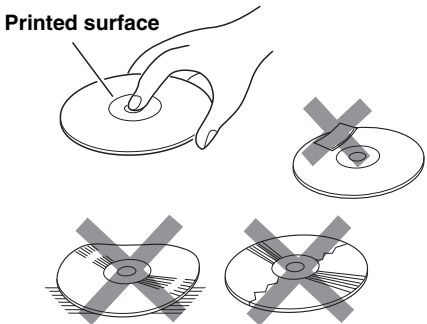
The world is divided in 6 regions with corresponding region numbers for DVD software. This is to enable DVD players to playback only DVD software with corresponding region numbers. This unit will not playback any DVD video disc whose region number that does not correspond with the unit.

Hint

- Discs whose region number is “ALL” can be played back by DVD players with any region number regardless of the region.
- Discs whose region number is not indicated has a region number even though it is not shown. Contrary to discs that can only be played back using only DVD players with corresponding region numbers, there is a possibility that discs with no indicated region number may be played back using any DVD player regardless of the region.

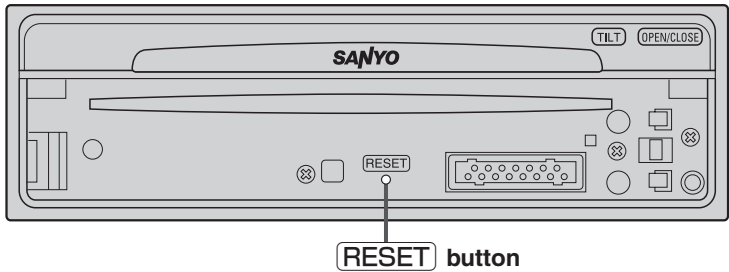
HOW TO HANDLE DISCS

- Try not to touch the recorded surface of discs when holding them.
- Adhere paper or seals to the printed or recorded surface of the disc in a way so as not to scratch the disc.
- Do not use discs with dried glue from peeled off cellophane tape or labels. The discs may not be retractable resulting in damage to the unit.
- The discs are rotated at a high speed. Do not use cracked or warped discs.
- To prevent warping, store in a case away from direct sunlight. Do not place them on the seat or dashboard in vehicles under direct sunlight especially during the summer months when temperatures rise significantly.
- Prior to use, gently wipe away any dirt, dust or fingerprints from the recorded surface of the disc using a soft cloth from the center of the disc towards the edges.
- Do not use a record spray or an antistatic agent. Also, discs may get damaged by benzene, thinner or other volatile substance. Do not use these.



RESETTING THE UNIT

To use for the first time, or after replacing the car battery or changing the connections, resetting is necessary. After detaching the front panel, (See p.31) push the **RESET** button by using a pointed object (ex. ball point pen).



CAUTION

Do not use a needle or push the button too strongly.

Hint

- When the **RESET** button is pushed, all the setting memory are lost and you have to Reprogrammed.
- It takes about 10 seconds to resetting after the **RESET** button is pushed.
- After the resetting is completed, press the **OPEN/CLOSE** button to confirm that the monitor opens up properly.

OPENING UP/CLOSING THE MONITOR

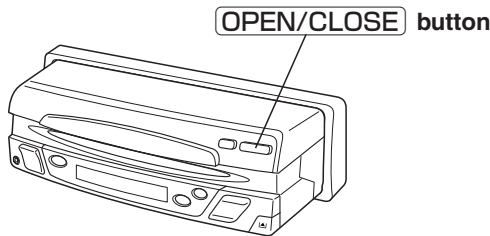
When turning on the ignition, the unit is power on, and the warning message appears on the screen.

WARNING !

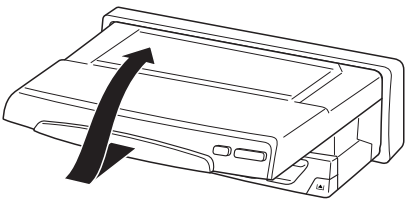
TO AVOID RISK OF ACCIDENT OR POSSIBLE VIOLATION OF LAWS, DO NOT OPERATE DEVICE IF IT IS VISIBLE TO THE DRIVER.

OPENING UP THE MONITOR

- 1 Press **OPEN/CLOSE** button.



: The monitor slides out of the unit and opening up.



CLOSING THE MONITOR

- 1 Press **OPEN/CLOSE** button.

: The monitor retracts automatically, and you can use only the audio functions of the unit.

Hint

This function cannot be operated by the remote controller.

CAUTION

Do not close your fingers to the monitor while it is opening or closing. Damage to the unit or injury may result.

ADJUSTING THE MONITOR AHEAD

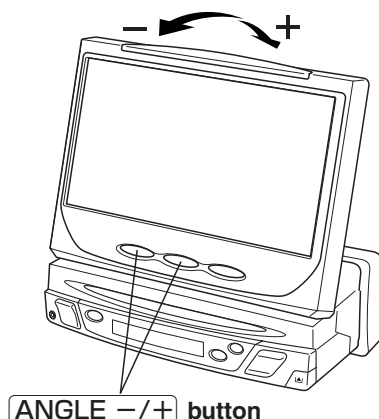
You can adjust the monitor angle for your best viewing.

1 Press the **ANGLE -** or **ANGLE +** button repeatedly.

: Every time press this button, the monitor tilts little by little.

ANGLE - ➡ Monitor tilts forward.

ANGLE + ➡ Monitor tilts backward.



Hint

The adjustment is memorized, and the monitor angle will be the same the next time it is opened up.

CAUTION

Do not close your fingers to the monitor while it is opening or closing.
Do not move the monitor by hand.
Damage to the unit or injury may result.

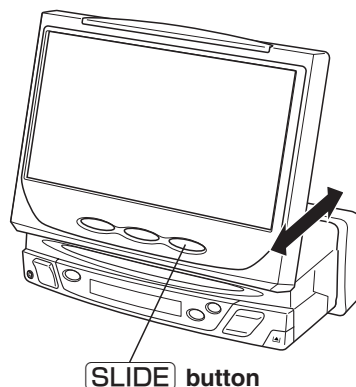
ADJUSTING THE MONITOR

You can adjust the monitor position by sliding it forward or backward.

1 Press the **SLIDE** button.

: The monitor moves forward or backward.

When the monitor cannot be slided anymore, the monitor will slide in the opposite direction.



Hint

The adjustment is memorized, and the monitor position will be the same the next time it is opened up.

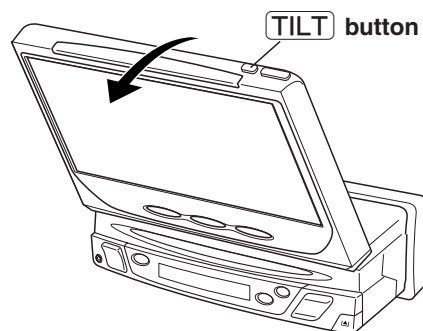
TILTING THE MONITOR AHEAD

To operate the button on the dashboard easily, the monitor can be tilted ahead.

1 Press **TILT** button.

: The monitor will be titled ahead.

To return to the original position, press **TILT** again.



Hint

The monitor will return to the original position if no operation is made for roughly 25 seconds.

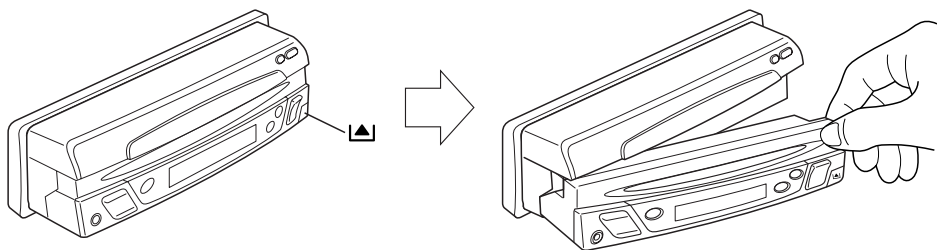
DETACHING/ATTACHING THE FRONT PANEL

DETACHING THE FRONT PANEL

You can detach the front panel of the unit to prevent theft.

1 Turn off the engine.
: The unit is turned off.

2 Press  (Release button) on the front panel and pull the front panel towards you.



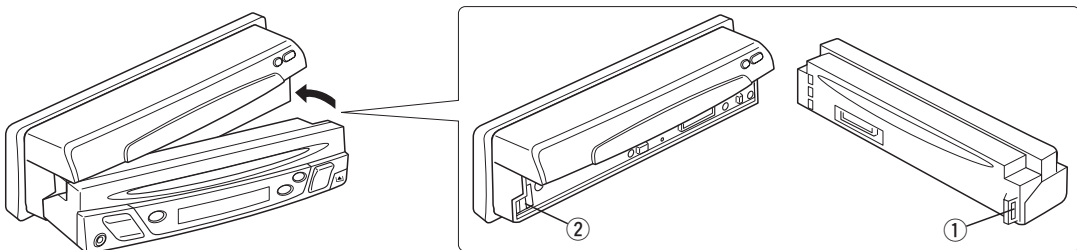
CAUTION

- Do not drop, put excessive pressure, or place heavy objects on the front panel.
- Do not leave the front panel in areas of high temperature or moisture (direct sunlight, in a vehicle under the hot sun, on a dashboard, or on a rear tray).

Hint When carrying the front panel, use the attached front panel case.

ATTACHING THE FRONT PANEL

1 Engage ① of the front panel with ② of the unit as the following figure, and push the right side into position until you hear a click.



CAUTION

Do not put anything into the inner of the front panel.

SHUTTING DOWN

TO TURN OFF THE SOUND AND IMAGE

- < On the screen Touch **POWER**.
- < On the front panel Press **POWER**.
- < On the remote controller Press **PWR**.

: OFF display screen appears, and the clock indication is displayed on the front panel.

To cancel the OFF mode.

- < On the screen Touch **POWER**.
- < On the front panel Press **POWER**.
- < On the remote controller Press **PWR**.

: The sound and image are turned on again.

TO TURN OFF THE UNIT

- If you set the ignition key of the car to OFF, power to the unit is automatically turned off.
(In this case, when you set the ignition key of the car to ON, the unit is automatically turned on.)

(In this case, when you set the ignition key of the car to ON, the unit is automatically turned on.)

You can also turn off the unit by following method.

- < On the front panel Press longer **POWER**.
- < On the remote controller Press longer **PWR**.

* You cannot turn off by touching the screen.

(In this case, to turn on the unit, press **POWER** on the front panel.)

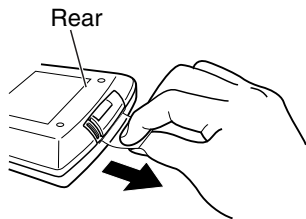
* You cannot turn on by touching the screen and by the remote controller.

CAUTION

- When installing in a car without ACC (accessory) position on the engine key, after turning off the engine, make sure to press longer the **POWER** button to turn off the clock display.
Otherwise, the clock display does not turn off and this may cause battery drain.
- Do not put any articles, such as cans or bottles on the monitor. Malfunction may result.

■ Preparing the remote controller

The remote controller already contains a lithium battery (CR2025). Pull out the insulation film to start using the unit.



⚠ CAUTION

- Do not leave the remote controller in an extremely hot or humid place.
- Do not drop any foreign object into the remote controller particularly when replacing the battery.
- If you do not intend to use the remote controller for an extended period of time, remove the battery to avoid possible damage from battery leakage and corrosion.
- Spilling water, beverages or solvents onto the remote controller may cause damage. Exercise caution.

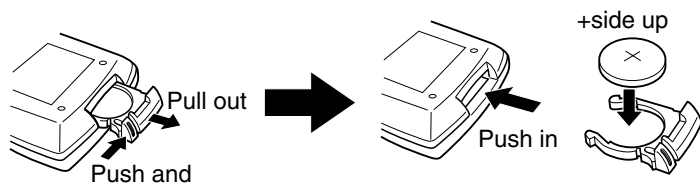
■ Replacing the battery

Under normal conditions, battery will last approximately 1 year. (The service life may be shorter, depending on the conditions of use.)

When the battery becomes weak, the range of the remote controller becomes shorter.

Replace the battery with a new CR2025 lithium battery.

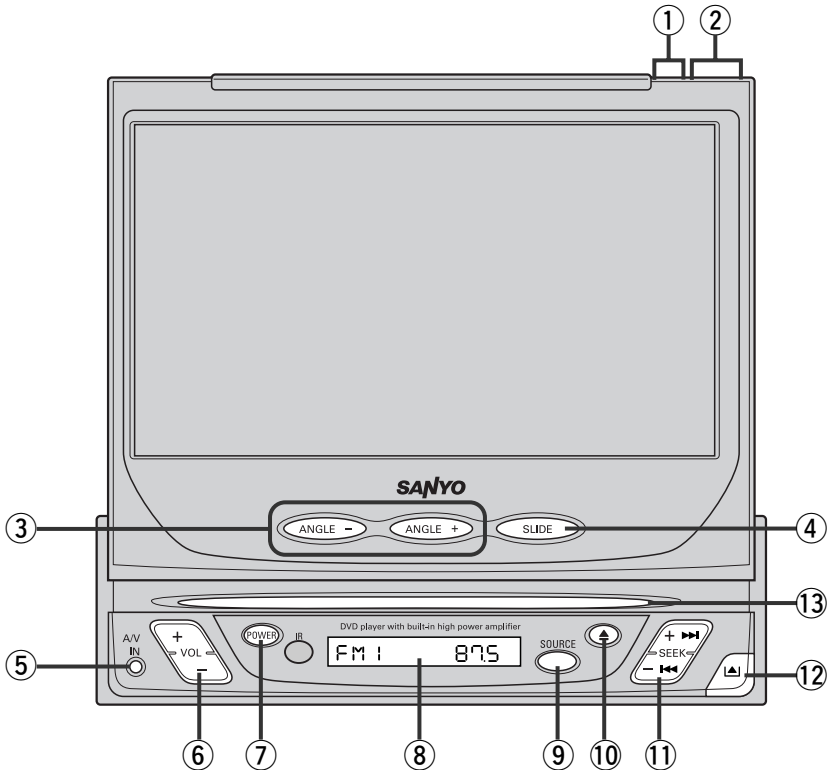
Use of any other battery may present a risk of fire or explosion.



- Be sure to observe the correct polarity when installing the battery.
- Do not hold the battery with metallic tweezers, otherwise a short-circuit may occur.
- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure a good contact.

⚠ WARNING

Battery may explode if mistreated. Do not recharge, disassemble, or dispose of in fire.



- ① **TILT** button (See p.30)

② **OPEN/CLOSE** button (See p.28)

③ **ANGLE -/+** button (See p.29)

④ **SLIDE** button (See p.29)

⑤ **A/V IN** jack (See p.83)

⑥ **VOL +/-** button (See p.37)

⑦ **POWER** button (See p.32, 77)
- ⑧ **Display window**

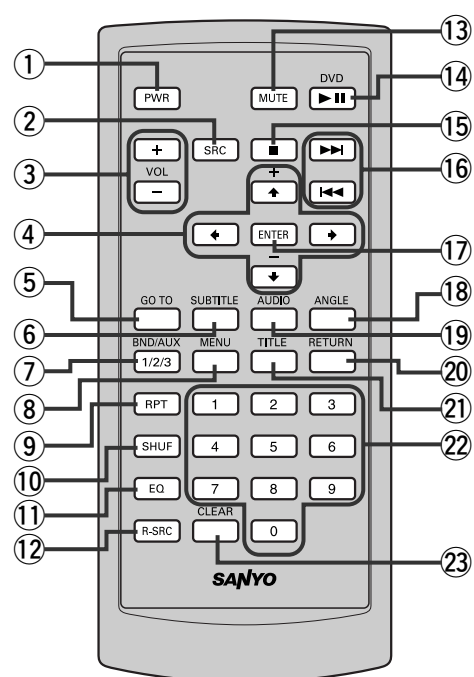
⑨ **SOURCE** button (See p.37, 77)

⑩ **(EJECT)** button (See p.36)

⑪ **SEEK +/- >>>/<<<** button (See p.45, 46, 49, 50, 52, 58, 59, 73, 77)

⑫ **(RELEASE)** button (See p.31)

⑬ **Disc insert aperture** (See p.36)

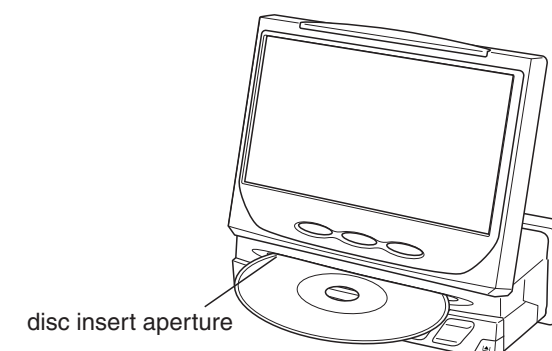


- | | |
|--|---|
| ① PWR (POWER) button (See p.32, 77) | ⑬ MUTE button (See p.37)
To cut the sound output. |
| ② SRC (SOURCE) button (See p.37, 77)
To change the source. | ⑭ DVD button (See p.46, 50, 57) |
| ③ VOL / button (See p.37) | ⑮ (STOP) button (See p.57) |
| ④ / / / buttons
To move the cursor, or turn the page. | ⑯ / button
(See p.45, 46, 49, 50, 52, 58, 59, 73, 77) |
| ⑤ GO TO button (See p.62) | ⑰ ENTER button (See p.63)
To complete a setting. |
| ⑥ SUBTITLE button (See p.60) | ⑱ ANGLE button (See p.61) |
| ⑦ BND/AUX button (See p.74, 79, 83) | ⑲ AUDIO button (See p.61) |
| ⑧ MENU button (See p.63) | ⑳ RETURN button (See p.63) |
| ⑨ RPT (REPEAT) button (See p.45, 51, 59) | ㉑ TITLE button (See p.63) |
| ⑩ SHUF (SHUFFLE) button (See p.47, 51) | ㉒ Number buttons (See p.62, 74, 75, 79) |
| ⑪ EQ (EQUALIZER) button (See p.39) | ㉓ CLEAR button
To cancel entered numbers. |
| ⑫ R-SRC (REAR SOURCE) button
(See p.41) | |

See p.35 "About the remote controller" for details how to replace the battery.

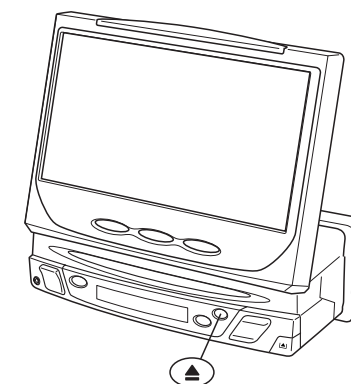
INSERTING A DISC

Insert a disc with the printed side up into the disc insert aperture.



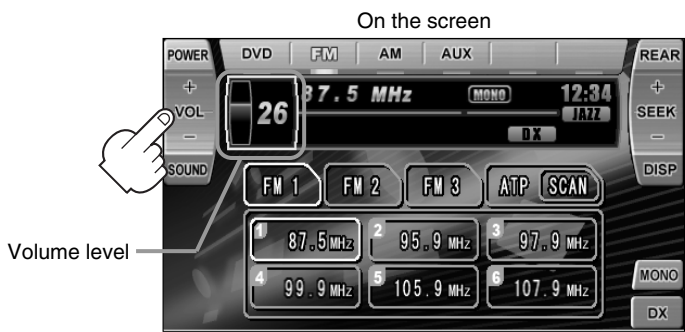
REMOVING A DISC

Press the (EJECT) button.



HOW TO ADJUST THE VOLUME

- < On the screen Touch **+**/**-** on the **VOL**.
- < On the front panel Press **+**/**-** on the **VOL**.
- < On the remote controller Press **+**/**-**.



: The volume level appears on the screen roughly 5 seconds.

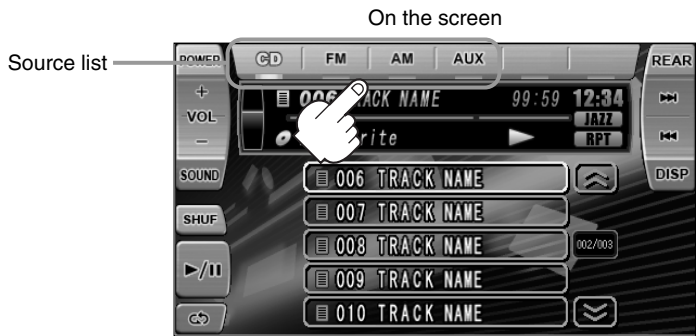
HOW TO MUTE THE SOUND Only by remote controller

Press **MUTE** on the remote controller.

- : The sound is muted temporarily.
- Press again and the sound returns to normal.

TO SWITCH FROM THE OTHER SOURCES

- < On the screen Touch the desired source from the source list on the screen.
- < On the front panel Press **SOURCE** repeatedly to select the desired source.
- < On the remote controller Press **SRC** repeatedly to select the desired source.



COMMON FUNCTIONS

SETTING THE SOUND QUALITY	39
SETTING FRONT/REAR MODE	41
SETTING THE DISPLAY	42

SETTING THE SOUND QUALITY

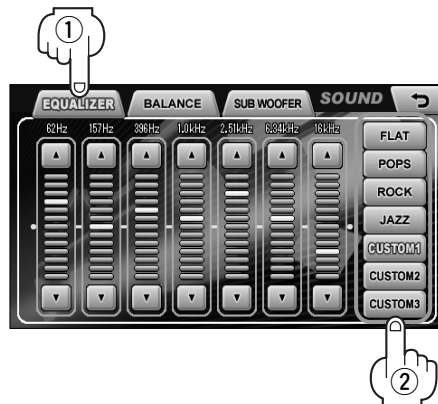
You can store the sound quality and the sound characteristics.

- 1** Touch **SOUND** on the screen.
: Sound setting screen appears.



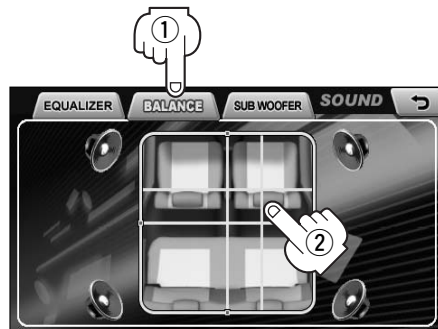
2 < **Setting EQUALIZER**

- ① Touch **EQUALIZER**.
- ② Touch the desired setting from FLAT/POPS/ROCK/JAZZ/CUSTOM1/CUSTOM2/CUSTOM3.
(On the remote controller, press **EQ** repeatedly to select the desired setting.)
- If you select CUSTOM1/CUSTOM2/CUSTOM3, you can store your own user-adjustable by touching ▲/▼.



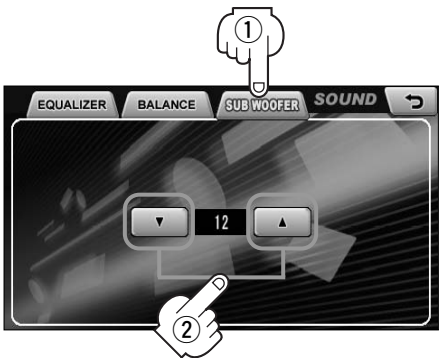
< **Setting BALANCE**

- ① Touch **BALANCE**.
- ② Touch the desired point to adjust the desired balance.



< **Setting SUB WOOFER**

- ① Touch **SUB WOOFER**.
- ② Set the desired level by touching ▲/▼.



- 3** To close the sound setting screen.
Touch **↶**.

SETTING FRONT/REAR MODE

You can simultaneously listen to a separate sound source in the unit and auxiliary audio equipment in the rear.

- 1

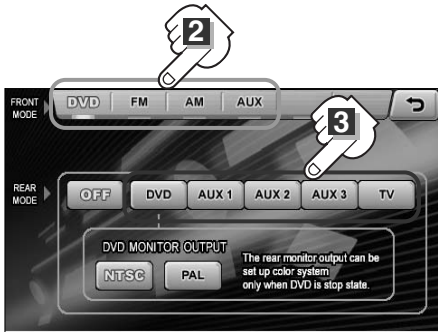
Touch **REAR** on the screen.

: FRONT MODE and REAR MODE screen appears.



- 2

Touch the desired mode on the FRONT MODE.



- 3

Touch the desired mode on the REAR MODE.

(On the remote controller: To switch from **OFF**, press longer **R-SRC**, then press **R-SRC** repeatedly to select the desired source.)

- * The mode that cannot be selected becomes gray.
- If selecting DVD, touch to select the DVD MONITOR MODE from NTSC/PAL.

NTSC When playing back a DVD recorded in NTSC system.

PAL When playing back a DVD recorded in PAL system.

- This setting is available only when DVD playback is stopped.

- 4

To inactivate the REAR MODE, touch **OFF**.

(On the remote controller, press longer **R-SRC** to select **OFF**).



- 5

To close the display, touch **DISP**.

Hint

- To operate the source of the front, use the buttons of the main unit, and to operate the source of the rear, use the remote controller.
- The combinations of the sources below cannot be set.
 - AUX2-AUX3
 - TV-AUX2 or AUX3
- About AUX, See p.83.

SETTING THE DISPLAY (1)

You can select the screen size, picture characteristics, and wall paper etc...

- 1

Touch **DISP** on the screen.

: Setting screen appears.



- 2

< **Setting SIZE**

① Touch **SIZE**.

② Touch the desired screen display from **NORMAL** / **FULL** / **WIDE** / **CINEMA**.

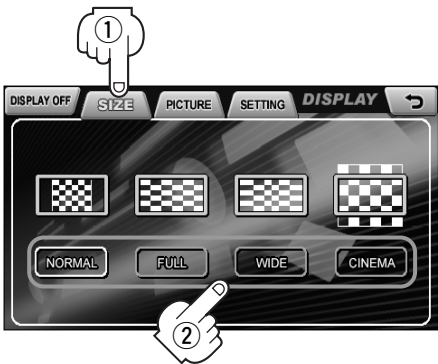
NORMAL : 4:3 image screen

FULL : 4:3 image stretched on either side to fit a 16:9 screen.

WIDE : screen with the “discomfort” of the full screen lessened

CINEMA : enlarged 4:3 image screen

* If having selected CINEMA, the upper and lower parts of the screen are cut out in order to enlarge the image.



- < **Setting PICTURE**

① Touch **PICTURE**.

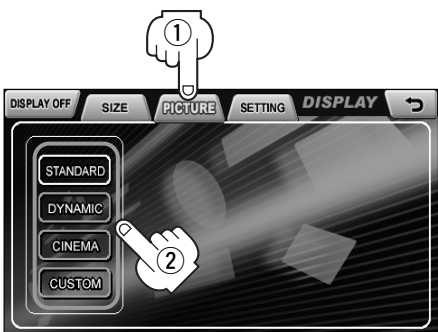
② Touch the desired picture from **STANDARD** / **DYNAMIC** / **CINEMA** / **CUSTOM**.

STANDARD : Setting standard picture and function.

DYNAMIC : Beautiful images with bright, clear colors.

CINEMA : Clear picture with a clear black and white definition.

CUSTOM : You can adjust the picture characteristics and store the setting.



COMMON
FUNCTIONS

SETTING THE DISPLAY (2)

■ If selecting **CUSTOM**.

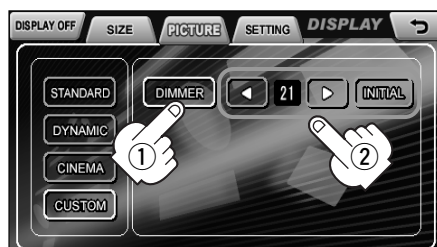
You can store your own use-adjustable.

- CD/MP3/JPEG/FM/AM: DIMMER
- DVD: DIMMER/BRIGHT/CONTRAST
- AUX: DIMMER BRIGHT/CONTRAST/COLOR

① Touch **DIMMER** / **BRIGHT** / **CONTRAST** / **COLOR**.

② Adjust the desired level by touching ◀ / ▶.

- To set the initial number, touch **INITIAL**.



< Selecting **SETTING**

Touch **SETTING**.

CLOCK

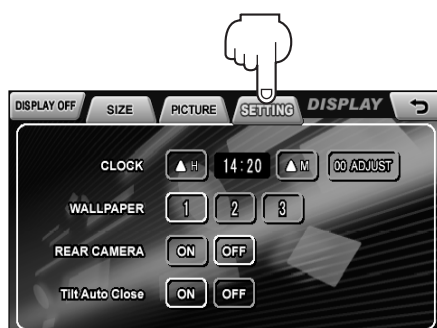
- Touch ▲ H / ▲ M to adjust hours and minutes.

* You can set minute 00 by touching **00 ADJUST**.

- If the minute is under 31, the minute will be 00.
- If the minute is over 31, the minute will be 00 and the hour will be advanced by 1 hour.

example: 10:00 – 10:30 ➔ 10:00


10:31 – 11:00 ➔ 11:00



WALLPAPER

- Touch the desired wall paper number **1** / **2** / **3**.

REAR VIEW CAMERA

- Touch **ON**Select this when you connect the rear view camera to AUX 3 jack.
- Touch **OFF**
 - Select this when you connect the other components other than back camera to AUX jack.
 - You can check the camera view of the REAR VIEW camera.
 See p.84.

Tilt Auto Close

- Touch **ON**The monitor closes/opens up automatically when the power supply is turned off/on.
- Touch **OFF**The above mentioned function is not done.

3

To close the setting screen, touch .

CD/MP3/JPEG OPERATION

CD

TO START PLAYBACK	45
VARIOUS PLAYBACK FUNCTIONS	45

MP3

ABOUT MP3	48
TO START PLAYBACK	49
VARIOUS PLAYBACK FUNCTIONS	49


JPEG

TO START PLAYBACK	52
VARIOUS PLAYBACK FUNCTIONS	52

TO START PLAYBACK

CD

1 Open up the monitor.  See p.28

2 Insert disc in the unit with the printed side up.  See p.36
: The unit automatically starts playback.

SCROLL

- By touching the Track name/Disc title, you can scroll long displayed items (up to 31 characters).



Disc title

Elapsed time

Track name



VARIOUS PLAYBACK FUNCTIONS (1)

CD



SKIP TO THE NEXT/PREVIOUS TRACK DURING PLAYBACK

During playback,



< **On the screen**

- To skip to the next track : touch .
- To skip to the previous track : touch .

< **On the front panel**

- To skip to the next track : press  on the **SEEK** button.
- To skip to the previous track : press  on the **SEEK** button.

< **On the remote controller**

- To skip to the next track : press .
- To skip to the previous track : press .

On the screen





Hint

- A “track” is a segment representing a song stored on a CD. See p.88, “Terminology”.
- Some discs may have chapters/tracks prohibiting this function.



REWINDING AND FAST-FORWARDING

During playback,



< On the screen

- To rewind : touch longer .
- To fast-forward : touch longer .

< On the front panel

- To rewind : press longer  on the **SEEK** button.
- To fast-forward : press longer  on the **SEEK** button.

< On the remote controller



- To rewind : press longer .
- To fast-forward : press longer .


■ and release at the desired point.

On the screen



PAUSE FUNCTION (FREEZE-FRAME)

Touch  on the screen (on the remote controller, press ) during playback.

“” appears on the screen and the sound stops.

■ To start playback again...

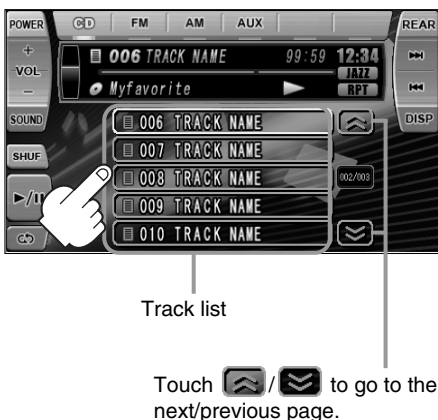
Touch  on the screen (on the remote controller, press ).

Playback will resume from the position where it was stopped.



TO SELECT THE TRACK DIRECTLY

Touch the desired track from the track list.
: The selected track plays back.

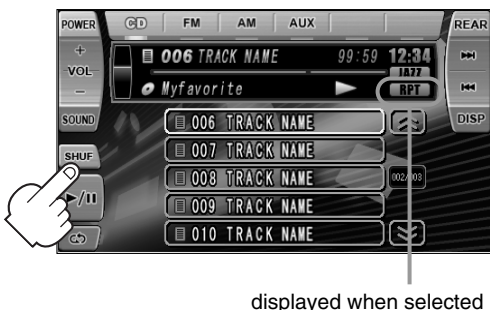


SHUFFLED PLAYBACK

Touch **SHUF** on the screen.
(On the remote controller, press **SHUF**.)
: **SHUF** appears and playbacks tracks randomly.

To return to normal playback...

Touch **SHUF** again.
(On the remote controller, press **SHUF**.)

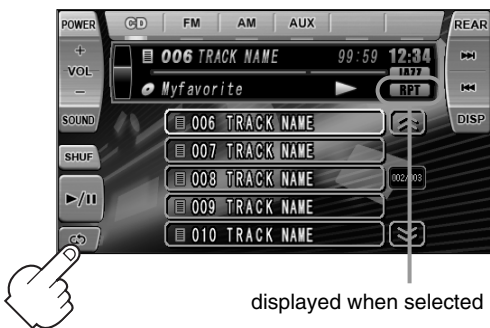


REPEAT PLAYBACK

Touch **RPT** on the screen.
(On the remote controller, press **RPT**.)
: **RPT** appears and the current track will be repeated.

To return to normal playback...

Touch **RPT** again.
(On the remote controller, press **RPT**.)



MP3 (MPEG-1 Audio Layer-3) is a music file compression format standard. It compresses audio CD data to approximately 1/10 of its original size.

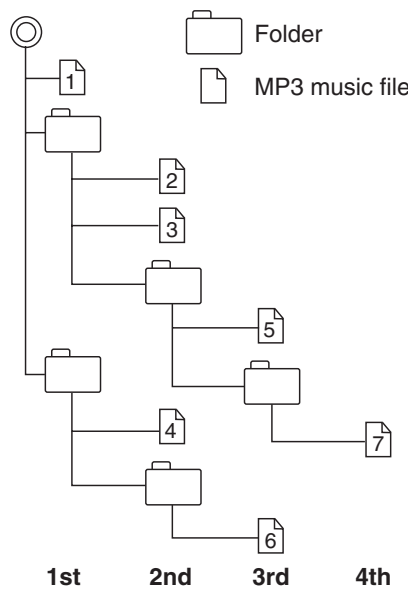
The unit is compatible with the following.

- CD**
- ISO 9660 level 1/level 2 format
 - Juliet/Romeo in the expansion format
 - Multi Session
- MP3**
- ID3 tag version 1.0, 1.1, 2.2, 2.3, and 2.4
- DVD**
- UDF Bridge format (combined UDF and ISO 9660)

The maximum number

- Albums ➔ 256 (including root and empty folders)
- MP3 files (tracks) and albums contained in a disc ➔ 1.000
- Displayable characters for an album/track name/ID3 tag ➔ 31

PLAYBACK ORDER OF MP3 FILES



- The unit can play up to 1.000 tracks and 256 albums.
- Tracks over the first 1.000 and albums over the first 256 cannot be recognized.

Hint

- The playback order may differ depending on the writing software.
- Make sure to finalize the disc before using on the unit.
- When naming an MP3 file, make sure to add the file expansion ".mp3" to the file name.
- If you play a high-bit-rate MP3, such as 320 kbps, sound may be intermittent.
- During playback of a VBR (variable bit rate) MP3 file or fast-forward/reverse, elapsed playing time may not display accurately.
- When the disc is recorded in Multi Session, only the first track of the first session format is recognized and played (any other format is skipped). The priority of the format is CD-DA and MP3.
 - When the first file is a CD-DA, only CD-DA of the first session is played.
 - When the first file is not a CD-DA or MP3 session is played. If the disc has no data in any of these formats, "DISC ERROR" is displayed.
- The unit cannot play back Multi Border recorded MP3.
- DVD of sampling rate other than 44.1 kHz or 48 kHz cannot be played.
- If the numbers (01, 02, 03 etc.) are added to the front of the track names, the tracks in each holder will be played in numerical order.

TO START PLAYBACK

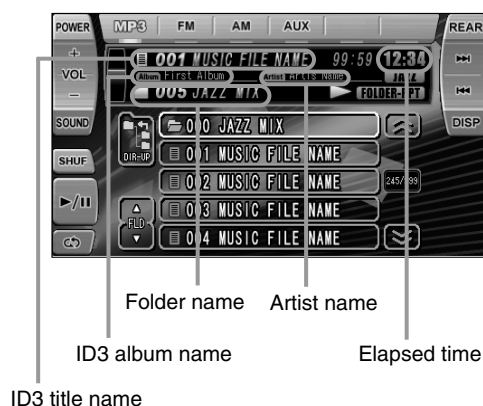
MP3

1 Open up the monitor. See p.28

2 Insert disc in the unit with the printed side up. See p.36
: The unit automatically starts playback.

SCROLL

- By touching the Folder name/ID3 title name/ID3 album name/Artist name, you can scroll long displayed items (up to 31 characters).



VARIOUS PLAYBACK FUNCTIONS (1)

MP3

SKIP TO THE NEXT/PREVIOUS FILE DURING PLAYBACK

During playback,

< **On the screen**

- To skip to the next file : touch .
- To skip to the previous file : touch .

< **On the front panel**

- To skip to the next file : press on the **SEEK** button.
- To skip to the previous file : press on the **SEEK** button.

< **On the remote controller**

- To skip to the next file : press .
- To skip to the previous file : press .

On the screen





Hint

- Some discs may prohibit this function.



REWINDING AND FAST-FORWARDING

During playback,



< On the screen

- To rewind : touch longer .
- To fast-forward : touch longer .

< On the front panel

- To rewind : press longer  on the **SEEK** button.
- To fast-forward : press longer  on the **SEEK** button.

< On the remote controller



- To rewind : press longer .
- To fast-forward : press longer .


■ and release at the desired point.

On the screen



PAUSE FUNCTION (FREEZE-FRAME)

Touch  on the screen (on the remote controller, press ) during playback.

"" appears on the screen and the sound stops.

■ To start playback again...

Touch  on the screen (on the remote controller, press )

Playback will resume from the position where it was stopped.











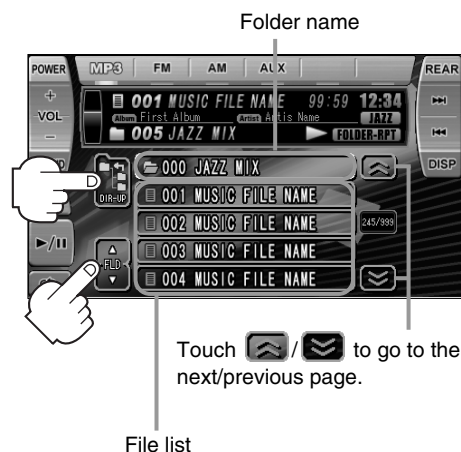
TO SELECT THE FILE DIRECTLY

You can select the desired file.

1 Touch the desired folder name.

: The file list appears.

- Touch to go to the previous directory.
(When the first directory (Root) is displayed, the  becomes  (blank).)
- Touch  /  to go to the next/previous folder.
- On the remote controller, press  /  to go to the next/previous folder.



2 Touch the desired file name.

: The selected file plays back.

SHUFFLED PLAYBACK

Touch **SHUF** on the screen.

(On the remote controller, press **SHUF**.)

: **SHUF** appears and playbacks tracks randomly.

■ To return to normal playback...

Touch **SHUF** again.

(On the remote controller, press **SHUF**.)



REPEAT PLAYBACK

REPEATRepeats the current file.

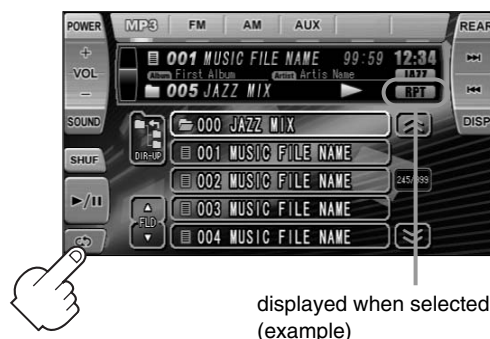
FOLDER REPEATRepeats the files in the folder.

REPEAT OFFNormal playback.

Touch  on the screen.

(On the remote controller, press **RPT**.)

: Every time it is touched, the mode switches.



TO START PLAYBACK

JPEG

1 Open up the monitor.  See p.28

2 Insert disc in the unit with the printed side up.  See p.36

3 Touch the desired file.  See p.53

Hint

- The operation buttons appear for roughly 5 seconds. By touching the screen, the operation buttons appear again.
- To remove the operation buttons quickly, touch the screen.
- To rotate a large-size file, it may take longer to display.
- A JPEG file is designed to be optimally displayed at 640 x 480 pixels. A file in another size may not be displayed correctly, or picture shift (to the left or right) may occur.
- Progressive JPEG files cannot be displayed.

VARIOUS PLAYBACK FUNCTIONS (1)

JPEG



CD/MP3/JPEG

GO TO THE NEXT/PREVIOUS IMAGE



< On the screen

Touch the screen during playback.



: Operation buttons appear.

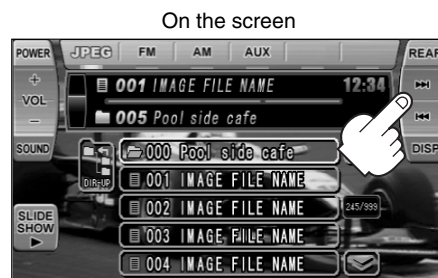
- Go to the next image : Touch .
- Go to the previous image : Touch .

< On the front panel

- Go to the next image : Press  on the **SEEK** button.
- Go to the previous image : Press  on the **SEEK** button.

< On the remote controller




- Go to the next image : Press .
- Go to the previous image : Press .

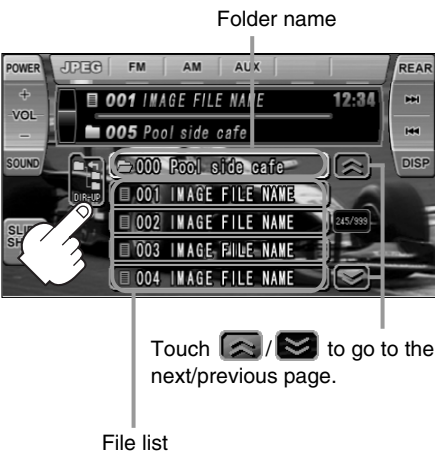


TO SELECT THE FILE DIRECTLY

You can select the desired file.

1 Touch the desired folder name.

- : The file list appears.
- Touch to go to the previous directory.
(When the first directory (Root) is displayed, the  becomes  (blank).)



2 Touch the desired file.


: The selected file is displayed.

SLIDE SHOW PLAYBACK

Touch  on the screen.

: Automatically playbacks files one at a time for roughly 10 seconds.

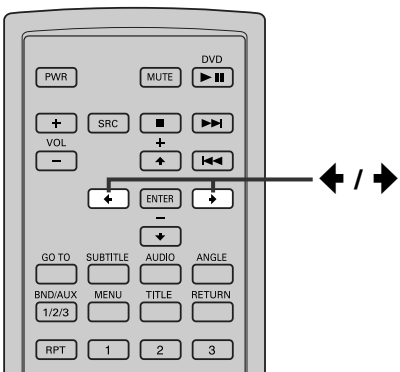
■ To stop SLIDE SHOW

Touch  again.



: The slide show is cancelled.



The displayed image can be rotated.



ROTATING THE IMAGE

- Press  to rotate the image 90 degrees to the left.
- Press  to rotate the image 90 degrees to the right.

DVD OPERATION

TO START PLAYBACK.....	57
VARIOUS PLAYBACK FUNCTIONS	57
SWITCHING THE SUBTITLE LANGUAGE	60
SWITCHING THE AUDIO LANGUAGE	61
CHANGING THE ANGLE	61
PLAYBACK FROM THE SELECTED POINT	62
USING THE MENU ON DVD.....	63
CHANGING THE DVD SETTING	64




TO START PLAYBACK

DVD

1 Open up the monitor.  See p.28

2 Insert disc in the unit with the printed side up.  See p.36
: The unit automatically starts playback.



Hint

- Depending on the disc, touch  on the screen to start playback (on the remote controller, press ).
- Depending on the disc, a menu may appear on the screen when a DVD is inserted. In this case,  See p.63.
- The operation buttons appear for roughly 5 seconds. By touching the screen, the operation buttons appear again.
- To remove the operation buttons quickly, touch the screen.

VARIOUS PLAYBACK FUNCTIONS (1)


DVD

TO STOP PLAYBACK

Touch the screen and touch  (on the remote controller, press .) on the screen.

Playback stops. ("RESUME PLAYBACK FUNCTION" is activated.)

RESUME PLAYBACK FUNCTION

- By touching  during playback, the unit will save in the memory the position where you stopped playback, and starts Resume playback even after the unit is turned off, or eject the playing disc. This is called "RESUME PLAYBACK FUNCTION". When this function is active, the image/audio is off.
- After the disc being played is ejected, the unit stores the point where you stopped playback for up to 10 discs and starts Resume playback.
- In this case, when storing a resume point for the 11th disc, the stored resume point for the 1st disc is cleared automatically.





■ To start playback again...

<How to playback from the position where it was stopped...

Touch the screen and touch  (on the remote controller, press ).

Playback will resumes from the position where it was stopped.




<How to playback the disc from the beginning...

① Touch the screen and touch  (on the remote controller, press ).



② Touch the screen again and touch  (on the remote controller, press ).

Playback starts from the beginning of the disc.

PAUSE FUNCTION (FREEZE-FRAME)

Touch the screen and touch  (on the remote controller, press ) during playback.
 appears on the screen and the image freezes. (The audio also stops.)

■ To start playback again...

Touch the screen and touch  (on the remote controller, press ).

Playback resume from the position where it was stopped.

Hint



- Resume play is available only for DVD.
- Depending on the disc or scene, you cannot use the resume playback function.

SKIP TO THE NEXT/PREVIOUS CHAPTER DURING PLAYBACK



< On the screen

Touch the screen during playback.



: Operation buttons appear.

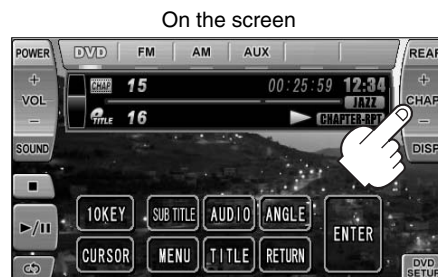
- To skip to the next chapter : touch  on the **CHAP** button.
- To skip to the previous chapter: touch  on the **CHAP** button.

< On the front panel

- To skip to the next chapter : press  on the **SEEK** button.
- To skip to the previous chapter: press  on the **SEEK** button.

< On the remote controller

- To skip to the next chapter : press .
- To skip to the previous chapter: press .



DVD

Hint



- A "chapter" is a small segment of the sound/image content stored on a DVD video.
See p.88, "Terminology".
- Some discs may prohibit this function.

REWINDING AND FAST-FORWARDING



< On the screen

Touch the screen during playback.



: Operation buttons appear.

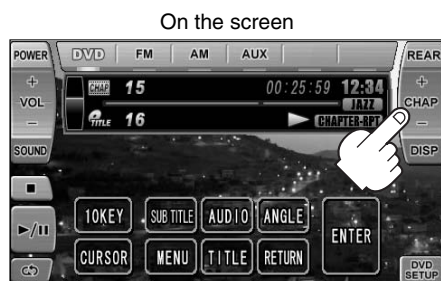
- To rewind : touch longer  on the **CHAP** button.
- To fast-forward : touch longer  on the **CHAP** button.

< On the front panel

- To rewind : press longer  on the **SEEK** button.
- To fast-forward : press longer  on the **SEEK** button.

< On the remote controller

- To rewind : press longer .
- To fast-forward : press longer .



REPEAT PLAYBACK

CHAPTER REPEATRepeats the current chapter.

TITLE REPEAT.....Repeats the current title.

REPEAT OFFNormal playback.

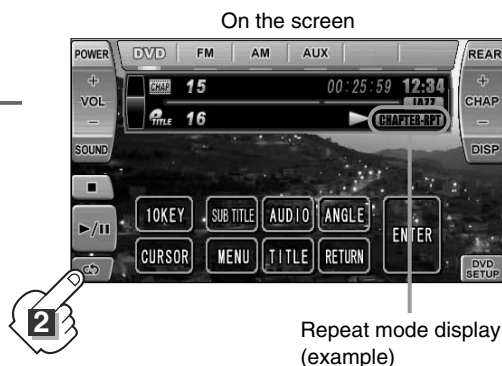
* Some discs do not have a repeat function even if repeat is selected.

1 Touch the screen during playback.

: Operation buttons appear.

2 Touch the on the screen. (On the remote controller, touch **RPT**.)

: Every time it is touched, the mode switches.



DVD videos may have subtitles programmed depending on the disc. If so, you can select to show or hide the subtitles. Also, depending on the disc, multiple subtitle languages may be programmed enabling the selection of any desired language available.

1 Touch the screen during playback.

: Operation buttons appear.





2 Touch **SUBTITLE**. (On the remote controller, press **SUBTITLE**.)

: The subtitle language appears.

- Repeatedly touch this button to switch the subtitle language from the list of available languages programmed in the disc.



Hint

- Depending on the disc, switching or hiding the subtitles may be prohibited.
- The Subtitle Language can also be switched at the DVD menu ( see p.63) or the Language setting ( see p.65).
- Depending on the disc, the subtitle language may not be changeable via the above operation. For such a case, switch the subtitle language at the DVD menu ( see p.63) or DVD setup ( see p.65).

SWITCHING THE AUDIO LANGUAGE

DVD

DVD videos may have multiple audio languages programmed depending on the disc. If so, select the desired language as per the instructions below.

1 Touch the screen during playback.

: Operation buttons appear.

2 Touch **AUDIO**.

(On the remote controller, press **AUDIO**.)

: The audio language appears.

- Every time the button is touched, the listed audio languages programmed in the disc are switched.



Hint

- The Audio Language can be switched at the menu on DVD (see p.63) on the language setting (see p.65).
- Depending on the disc, the audio language may not be changeable via the operation above. For such a case, switch the language at the DVD menu (see p.63) or DVD setup (see p.65).

CHANGING THE ANGLE

DVD

Depending on the disc, the same scene appearing on DVD videos may have been programmed in multiple angles (multi-angle recording). If so, you can switch to the desired angle available and enjoy the movie.

1 Touch the screen during playback.

: Operation buttons appear.

2 Touch **ANGLE**.

(On the remote controller, press **ANGLE**.)

: The angle changes every time it is touched.



Hint

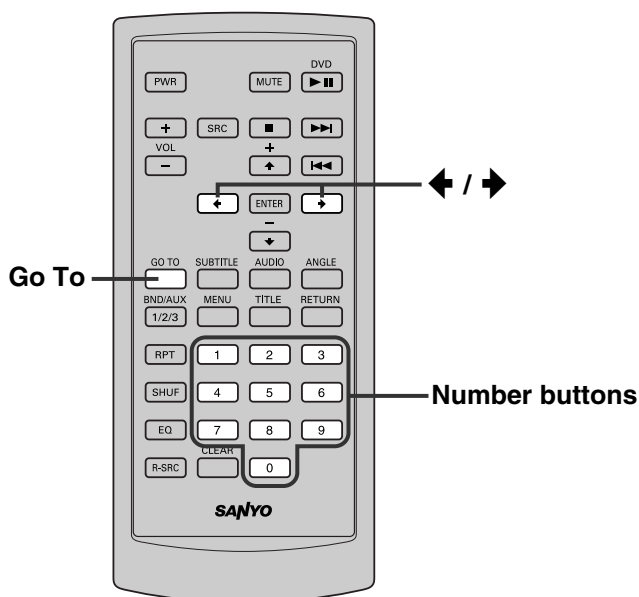
- The angle cannot be selected if the disc has not been programmed with multi-angle imaging.
- The total number of angles programmed varies depending on the disc and the recorded scene.

PLAYBACK FROM THE SELECTED POINT

Only by remote controller

DVD

Depending on the disc, the unit can playback from any title or chapter inputted in the present title.



1 During playback, press **GO TO** repeatedly to select Title/Chapter.

2 Press **←/→**, or the number buttons to select the desired chapter or title, then press **ENTER**.

: Playback starts from the selected point.

DVD

A Original menu may be programmed in the stored contents depending on the DVD video. In such a case, you can use the menu to select the desired item, and start playing.

< On the screen

Touch the screen during playback.
Operation buttons appear.

- ① Touch **MENU** or **TITLE**.
: The DVD menu or title menu appears.



- ② < • Touch **CURSOR**.
: The cursor key display screen appears.
- Touch **▲/▼/◀/▶** to select the desired item, then touch **ENTER**.



- < • Touch **10 KEY**.
: The 10-key display screen appears.
- Touch the number to select the desired item, then touch **ENTER**.
* To change the entered number, touch **CLEAR** and reenter the number.



- You can change the position of the cursor key/10-key display by touching **Panel position**.
(The position is lower left or lower right on the screen.)

< On the remote controller

- ① Press **MENU** or **TITLE**.
: The DVD menu or title menu appears.
- ② Press **▲/▼/◀/▶** or the number buttons to select the desired item, then press **ENTER**.

- To remove the currsor key/10-key display screen, touch **↶**.

Hint

- Depending on the disc, the menu may not be programmed.
- Depending on the disc, the item on the menu and the operation procedures may differ.
- Please read the instruction manual that came with the DVD you are playing back along with this manual.
- **ENTER** button.....Excecutes the item selected on the DVD menu screen.
- **RETURN** button.....Returns to the previous screen on the DVD menu screen. (Depending on the disc, this operation may be prohibited.

- 1 Touch the screen while playback is stopped.
: Operation buttons appear.
- 2 Touch **DVD SETUP**.
: DVD SETUP screen appears.
- 3 Touch the desired item.
: The selected item will light up yellow.



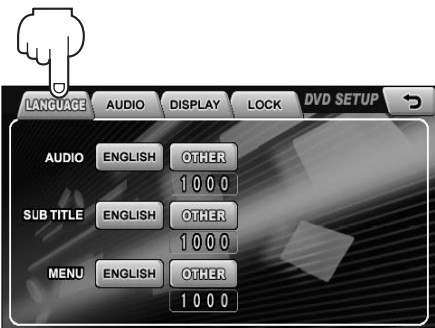
SELECTED ITEM	SETTINGS	
LANGUAGE	• AUDIO	: switch audio language during DVD video playback
	• SUBTITLE	: switch subtitle language during DVD video playback
	• MENU	: switch DVD menu display language
AUDIO	• DRC	: select sound quality
	• DOWNMIX	: select the downmix signal for optional audio component with a built-in DTS or Dolby Digital decoder.
	DOWNMIX • SURROUND	select the downmix signal for the optional audio component.
DISPLAY	• NORMAL	
	• 16:9	switch the image aspect ratio during DVD video playback
	• 4:3 LETTER BOX	
LOCK	• 4:3 PANSCAN	
	• RATING	: audio-visual control level setting
	• PASSWORD	: password change to prohibit others from modifying the audio-visual control level setting
	• COUNTRY CODE	: set the restriction levels depending on the area and its movie rating.

SELECTING LANGUAGE

1 Touch **LANGUAGE** and touch the changed setting item (AUDIO/SUBTITLE/MENU).

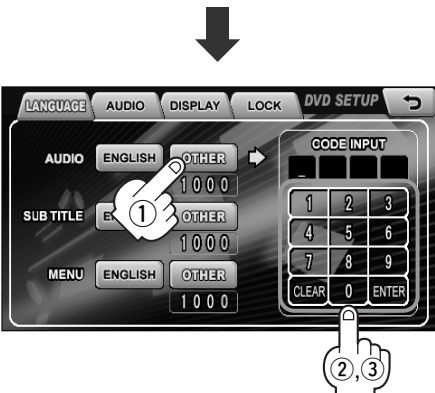
< Selecting **ENGLISH**

Touch **ENGLISH**.



< Selecting **OTHER**

- 1 Touch **OTHER** to display the 10-key input buttons.
- 2 Refer to the language code list (p.68) and enter the language number by touching the 10-key input buttons.
- 3 When the entry is finished, touch the **ENTER** button.



Hint

- To change the entered number, touch **CLEAR** and reenter the number.
- The default language is "1000 (Original)". (See p.68 for language codes other than English and original.)
- To return to the previous page, touch **←**.
- Regardless of setting to the desired language, other language may be automatically activated, depending on the DVD.

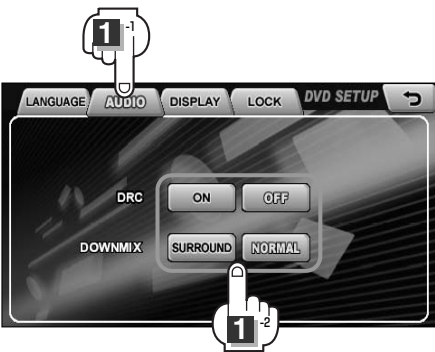
SELECTING AUDIO

1 Touch **AUDIO** and touch the changed setting item.

< If seleting DRC, touch **ON**/**OFF**.

"ON": Select to enjoy a sharp sound quality even at a low volume.

"OFF": Select to hear the standard register.



< If seleting DOWNMIX, touch **SURROUND**/**NORMAL**.

"SURROUND": Select this when the unit is connected to an audio component with a built-in DTS or Dolby Digital decoder.

"NORMAL": Select this when the unit is connected to an audio component lacking a built-in DTS or Dolby Digital decoder.

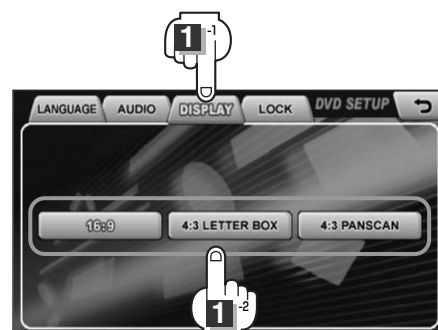
Language code list

Code	Language	Code	Language	Code	Language
1027	Afar	1229	Hungarian	1436	Portuguese
1028	Abkhazian	1233	Armenian	1463	Quechua
1032	Afrikaans	1235	Interlingua	1481	Raeto-Romance
1039	Amharic	1248	Indonesian	1483	Rumanian
1044	Arabic	1253	Icelandic	1489	Russian
1045	Assamese	1254	Italian	1495	Sanskrit
1051	Aymara	1257	Hebrew	1498	Sindhi
1052	Azerbaijani	1261	Japanese	1502	Serbo-Croatian
1053	Bashkir	1269	Yiddish	1503	Sinhalese
1057	Byelorussian	1283	Javanese	1505	Slovak
1059	Bulgarian	1287	Georgian	1506	Slovenian
1060	Bihari	1297	Kazakh	1507	Samoan
1066	Bengali; Bangla	1298	Greenlandic	1508	Shona
1067	Tibetan	1299	Cambodian	1509	Somali
1070	Breton	1300	Kannada	1511	Albanian
1079	Catalan	1301	Korean	1512	Serbian
1093	Corsican	1305	Kashmiri	1515	Sundanese
1097	Czech	1307	Kurdish	1516	Swedish
1103	Welsh	1311	Kirghiz	1517	Swahili
1105	Danish	1313	Latin	1521	Tamil
1109	German	1326	Lingala	1525	Telugu
1130	Bhutani	1327	Laothian	1527	Tajik
1142	Greek	1332	Lithuanian	1528	Thai
1144	English	1334	Latvian; Lettish	1529	Tigrinya
1145	Esperanto	1345	Malagasy	1531	Turkmen
1149	Spanish	1347	Maori	1532	Tagalog
1150	Estonian	1349	Macedonian	1535	Tonga
1151	Basque	1350	Malayalam	1538	Turkish
1157	Persian	1352	Mongolian	1540	Tatar
1165	Finnish	1353	Moldavian	1543	Twi
1166	Fiji	1356	Marathi	1557	Ukrainian
1171	Faroese	1357	Malay	1564	Urdu
1174	French	1358	Maltese	1572	Uzbek
1181	Frisian	1363	Burmese (Myanmar)	1581	Vietnamese
1183	Irish	1365	Nauru	1587	Volapük
1186	Scots Gaelic	1369	Nepali	1613	Wolof
1194	Galician	1376	Dutch	1632	Xhosa
1196	Guarani	1379	Norwegian	1665	Yoruba
1203	Gujarati	1408	Oriya	1684	Chinese
1209	Hausa	1417	Punjabi	1697	Zulu
1217	Hindi	1428	Polish	1000	Original
1226	Croatian	1435	Pushto; Pushto	0000	Subtitle off


SELECTING **DISPLAY**

- 1** Touch **DISPLAY** and touch the desired aspect ratio (**16:9** / **4:3 LETTER BOX** / **4:3 PANSCAN**).

* About LETTER BOX/PANSCAN,  See p.88.



Hint

- Depending on the DVD, “4 : 3 LETTER BOX” may be selected automatically instead of “4 : 3 PANSCAN”, and vice versa.
- If having selected an aspect ratio not programmed in the disc, the unit will playback using one of the aspect ratios programmed in the disc. Also, depending on the disc, there may be only one aspect ratio programmed. Verify the instruction manual for the disc being played back.
- If connecting a normal monitor and setting “16:9”, the image may look unnatural. If using a normal monitor, set “4:3 LETTER BOX” or “4:3 PANSCAN”.
- If connecting a wide monitor and setting “Full” or some other equivalent mode with “4:3 LETTER BOX” or “4:3 PANSCAN”, the screen will look unnatural. If viewing “4:3 LETTER BOX” or “4:3 PANSCAN” images using a wide monitor, set the wide monitor in a mode that will enable the screen lengthwise and crosswise ratio to be 4:3 (the name of this mode varies among makers, for example “Normal mode”).
- To return to the previous page, touch .

SELECTING **LOCK**

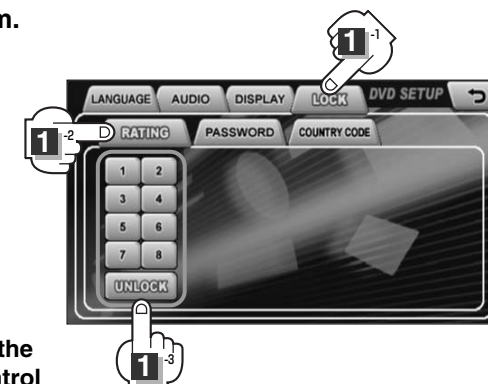
- 1** Touch **LOCK** and touch the changed setting item.

< If selecting **RATING**, touch the desired parental control level.

AV control level	OFF (Parental control setting invalid.)
	“8” (All DVD videos can be played back)
	“7”
	“6”
	“5”
	“4”
	“3”
	“2”
	“1” (Only DVD videos with content geared towards children can be played back.)

The lower the level, the more severe the control becomes.

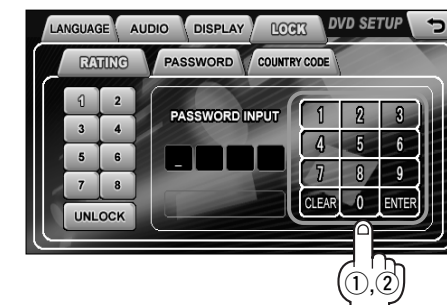
To cancel the parental control, select “UNLOCK”.



When touch the level number ...

The password verification screen appears.

- ① Enter the present password by touching the 10-key input buttons.
- ② When the entry is finished, touch the **ENTER** button.



Hint

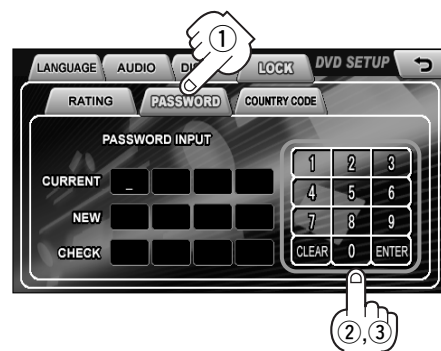
- To change the entered number, touch **CLEAR** and reenter the number.
- If having made an input error, the message “ERROR” will appear. Reenter the correct password.
- As long as the correct password is not inputted, the level cannot be changed.
- When you play discs which do not have the parental control, playback cannot be restricted on this unit.

< If selecting **PASSWORD**.

It is set to "1111" upon purchase.

CHANGING THE PASSWORD

- ① Touch **PASSWORD**, and enter the current password by touching the 10-key input buttons, then touch **ENTER**.
- ② Enter the new password by touching the 10-Key input buttons, then touch **ENTER**.
- ③ To confirm, enter the new password again on the **CHECK** boxes, then touch **ENTER**.
: The new password is set.



Hint

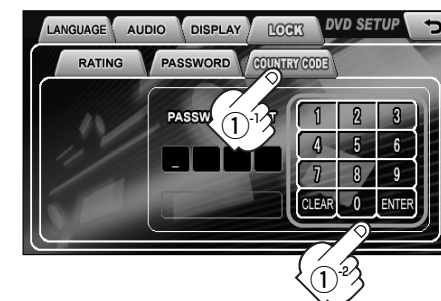
- To change the entered number, touch **CLEAR** and reenter the number.
- As long as the correct password is not inputted, PARENTAL SETTING cannot be changed.
- For discs not programmed with an parental control function, this unit is not capable of restricting their playback.
- To return to the previous page, touch **←**.
- If having forgotten your password . . .
Push reset button (See p.27) → The default password (1111) is set.

< If selecting **COUNTRY CODE**.

CHANGING THE AREA AND ITS MOVIE RATING LEVEL

You can set the restriction levels depending on the area and its movie ratings.

- ① Touch **COUNTRY CODE** and input the current password by touching the 10-key input buttons, then touch **ENTER**.

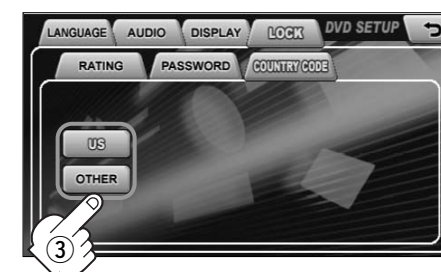


- ② < To select **US**, touch **US**.

: The setting is completed.

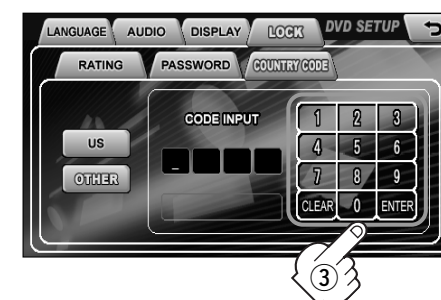
< To select the country other than US, touch **OTHER**.

: CODE INPUT screen appears. → go to step ③.



- ③ Enter the country code (See p.73 Area code list) by touching the 10-key input buttons, then touch **ENTER**.

: The country code is set.



Hint

- To change the entered number, touch **CLEAR** and reenter the number.
- To return to the previous page, touch **←**.

Area code list

Language	Code number
Argentina	2044
Australia	2047
Austria	2046
Belgium	2057
Brazil	2070
Canada	2079
Chile	2090
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
India	2248
Indonesia	2238
Italy	2254
Japan	2276
Korea	2304
Malaysia	2363
Mexico	2362
Netherlands	2376
New Zealand	2390
Norway	2379
Pakistan	2427
Philippines	2424
Portugal	2436
Russia	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Thailand	2528
United Kingdom	2184

FM/AM/TV OPERATION

FM / AM

LISTENING TO THE RADIO	73
STORING RADIO STATIONS.....	74
USING THE DX MODE	76
SWITCHING FM RECEPTION TO MONAURAL	76

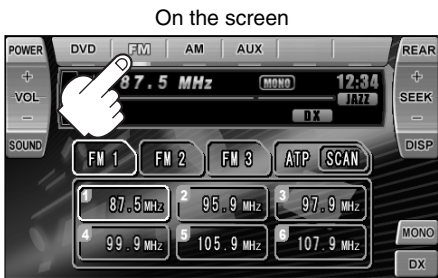
TV

WATCHING TV/TV COLOR SYSTEM SETTING	77
STORING TV STATIONS.....	79

1 Open up the monitor. See p.28.

2 Select **FM/AM** function.

- < **On the screen**
Touch **FM/AM**.
- < **On the front panel**
Press **SOURCE** repeatedly to select **FM/AM**.
- < **On the remote controller**
Press **SRC** repeatedly to select **FM/AM**.

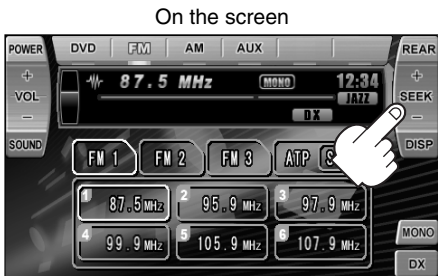


3 Select a station.

- < **TO USE AUTO TUNING**
 - < **On the screen**
Touch **SEEK +/-** until the desired station is received.
 - < **On the front panel**
Press **SEEK + >>>** / **<<< -** until the desired station is received.
 - < **On the remote controller**
Press **>>>** / **<<<** until the desired station is received.
- < **TO SELECT FROM THE STORED STATIONS**

Touch the desired station from the stored stations.

* To store the station, See p.74 and 75.

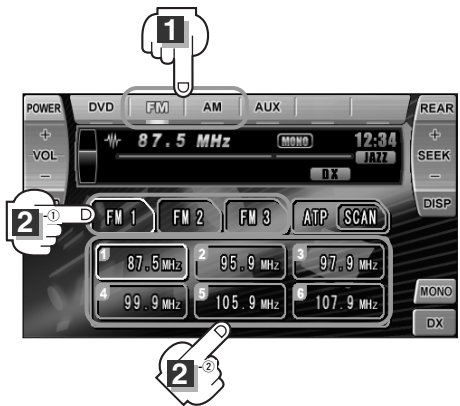


1 Select **FM/AM** function in step **2** (p.73).

2 **STORING MANUALLY**

You can store 18 stations for **FM** (**FM1**, **FM2**, **FM3**) and 12stations for **AM** (**AM1**, **AM2**).

- ① Touch either **FM1**, **FM2**, **FM3**, **AM1**, or **AM2** (on the remote controller, press **BND/AUX 1/2/3** repeatedly to select.) and select the desired station in step **3** **TO USE AUTO TUNING** (p.73)
- ② Touch longer the preset button you want to set. (On the remote controller, press longer a number button (**1** to **6**).)
: The station is set.



STORING RADIO STATIONS (2)

FM**AM**

STORING AUTOMATICALLY

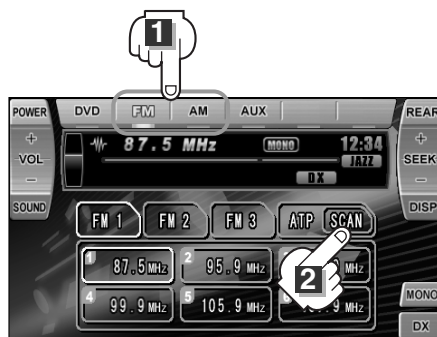
You can store 6 stations for FM and AM.

1 Select **FM**/**AM** function in step **2** (p.73).

2 Touch **SCAN**.

: The unit automatically selects the stations with the stronger signals and store them in order.

* To cancel the storing procedure, touch **SCAN** again during the storing procedure.



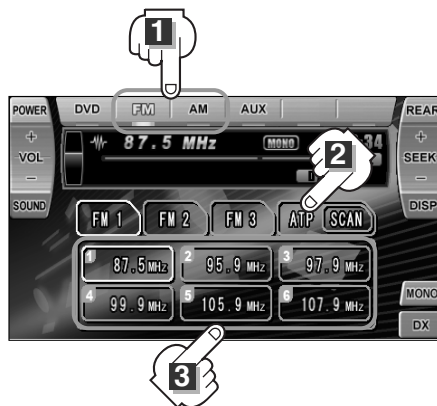
■ TO SELECT THE STORED STATION

1 Select **FM**/**AM** function in step **2** (p.73).

2 Touch **ATP**.

: The stored stations by **SCAN** are displayed.

3 Touch the desired station.
(On the remote controller, press a number button (1 to 6).)



Hint

- If you store another station on the same preset button, the previous stored station will be replaced.
- It takes several minutes to complete the setting.
- If you cancel storing procedure, the presetting will be proceeded partway.

USING THE DX MODE

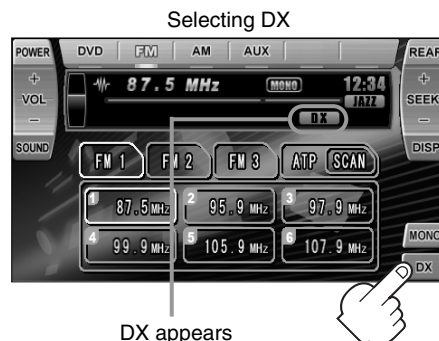
FM**AM**

By touching **DX**, you can get high reception sensitivity.

1 Touch **DX** on the screen.

: The **DX** appears.

* To cancel the **DX** mode, touch **DX** again.



SWITCHING FM RECEPTION TO MONAURAL

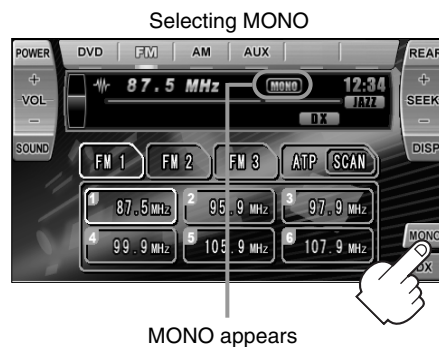
FM

If the broadcast is noisy, switch to FM reception monaural.

1 On **FM** mode, touch **MONO**.

Everytime it is touched, the mode switches MONO ↔ STEREO.

- If MONO is selected **MONO** appears.
- If STEREO is selected No display.



* To watch TV programs on the unit, SANYO TV tuner unit NVP-TV1000 (optional) must be connected.

- Select your area by TV color system setting.

* This function is available when a TV tuner with PAL system is connected.

1 Select the OFF mode.

- < On the screen Touch **POWER**.
- < On the front panel Press **POWER**.
- < On the remote controller Press **PWR**.

: OFF display screen appears.

2 Press **SOURCE** on the front panel for 3 seconds or more.

: TV system area appears. → example: **TV AUSTRALIA**

3 Press **+ >>>** on the **SEEK** button repeatedly to select your area from the displayed area.

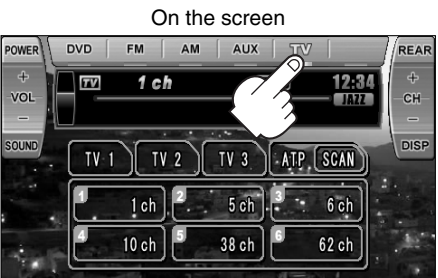
To remove the area indication in display, press **SOURCE** on the front panel.

* To cancel the OFF mode, see p.34.

1 Open up the monitor. See p.28.

2 Select **TV** function.

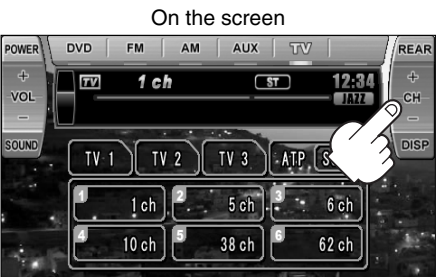
- < On the screen
Touch **TV**.
- < On the front panel
Press **SOURCE** repeatedly to select **TV**.
- < On the remote controller
Press **SRC** repeatedly to select **TV**.



3 Select a channel.


< TO USE AUTO TUNING

- < On the screen
Touch **CH +/-** until the desired channel is received.
- < On the front panel
Press **SEEK + >>>** / **- <<<** until the desired channel is received.
- < On the remote controller
Press **>>>** / **<<<** until the desired channel is received.



< FROM THE STORED CHANNELS

Touch the desired channel from the stored channels.

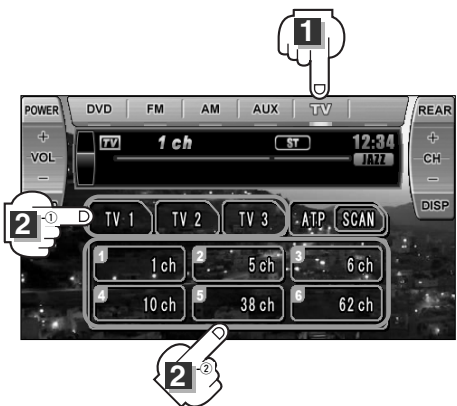
* To store the station,  See p.79 and 80.

1 Select **TV** function in step **2** (p.78).

2 STORING MANUALLY

You can store 18 stations for **TV** (**TV1**, **TV2**, **TV3**).

- ① Touch either **TV1**, **TV2**, or **TV3** (on the remote controller, press **BND/AUX 1/2/3** repeatedly to select.) and select the desired channel in step **3** **TO USE AUTO TUNING** (p.78)
- ② Touch longer the preset button you want to set. (On the remote controller, press longer a number button (**1** to **6**)).
: The channel is set.



STORING AUTOMATICALLY

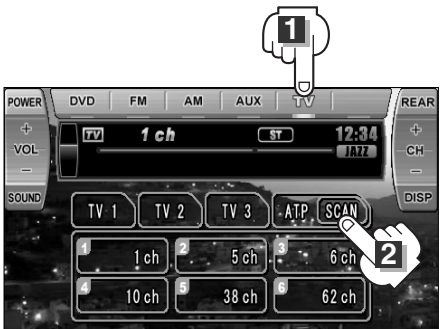
You can store 6 channels for TV.

1 Select **TV** function in step **2** (p.78).

2 Touch **SCAN**.

: The unit automatically selects the channels with the stronger signals and store them in order.

* To cancel the storing procedure, touch **SCAN** again during the storing procedure.



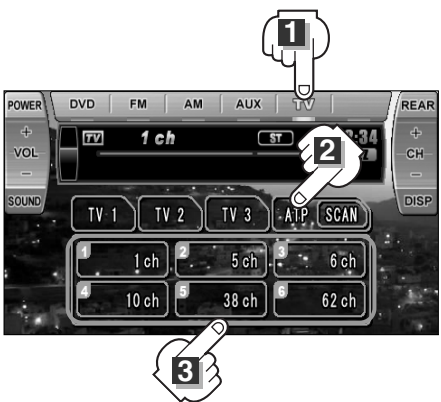
■ TO SELECT THE STORED STATION

1 Select **TV** function in step **2** (p.78).

2 Touch **ATP**.

: The stored stations by **SCAN** are displayed.

3 Touch the desired channel.
(On the remote controller, press a number button (**1** to **6**)).



Hint

- If you store another channel on the same preset button, the previous stored channel will be replaced.
- It takes several minutes to complete the setting.
- If you cancel storing procedure, the presetting will be proceeded partway.

AUX OPERATION

TO USE AUX FUNCTION	83
---------------------------	----

You can connect optional devices to the AUX terminal on the unit.

1 Open up the monitor. See p.28.

2 Select **AUX** function.

< On the screen

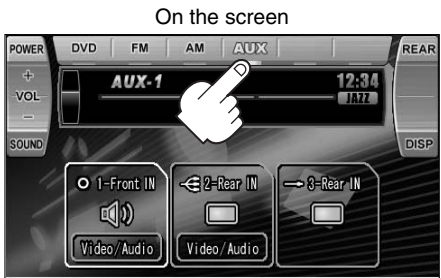
Touch **AUX**.

< On the front panel

Press **SOURCE** repeatedly to select **AUX**.

< On the remote controller

Press **SRC** repeatedly to select **AUX**.



3 Touch either **AUX1**, **AUX2**, or **AUX3** depending on the connected devices on the remote controller, press **BND/AUX** **1/2/3** repeatedly to select.

AUX1 (1-Front IN)/AUX2 (2-Rear IN)

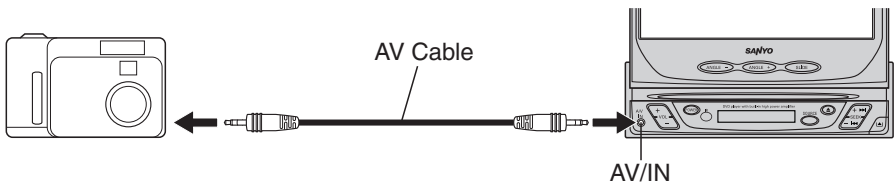
You can connect the audio device/video component (sold separately) such as portable memory audio player, digital video camera, etc. to AUX1 and AUX2 jacks.

Touch **Video/Audio** to select or .

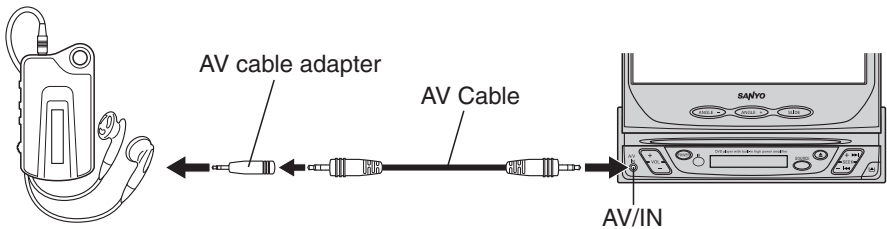
-Select this when you connect the audio device. The wallpaper will be displayed on the screen.
-Select this when you connect the video component.

- Connect with supplied AV cable. (Use a AV cable adapter when you connect the audio equipment.)

When you connect the digital video camera



When you connect the Portable memory audio



Note:
If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

AUX3 (3-Rear IN)

- You can connect the rear view camera (sold separately) to AUX3 jack.
- During the connection of the rear view camera. If you set REAR CAMERA to **OFF** on **SETTING** of **DISP** (See p.43), you can check the camera view of the rear view camera without setting the shift lever to the "R (reverse)". However, note that image of the rear view camera will be displayed only when the parking brake is set. If you switch to **ON** on **SETTING** of **DISP**, the image of the rear view camera will be displayed when the shift lever is set to the "R (reverse)".
- Make sure that the rear view camera cable is connected to the unit's AUX3 jack correctly.
- Select **OFF** on **SETTING** of **DISP** when you connect the other components other than rear view camera to AUX 3 jack.

Hint

- During the rear view camera is connecting to the AUX3 jack, if a rear monitor is connected, its display gets black when the shift lever is set to the "R (reverse)" position. The display turns back when the shift lever is set to the other position.
- If you set REAR CAMERA **ON** on **SETTING** of **DISP**, (3-Rear IN) is not displayed on the AUX screen.

WARNING

Do not back up the vehicle while watching only the video screen. Driver must look carefully in the direction the vehicle is moving in addition to using rear view mirrors and this device.

CAUTION

Please use the color rear view camera for avoid miss recognition of color system (PAL or NTSC).

OTHER

REPLACING THE FUSE.....87

CLEANING THE CONNECTORS87

TERMINOLOGY88

MAIN SPECIFICATIONS89

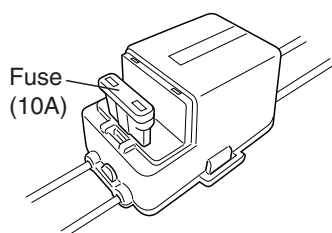
TROUBLE SHOOTING90

WHEN THIS MESSAGE APPEARS...94

DEFAULT SETTINGS LIST95

REPLACING THE FUSE

When the fuse is blown, check the power connection and replace the fuse of regulated value (10A). If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your place of purchase.



CLEANING THE CONNECTORS

If the connectors between the unit and the front panel are not clean, the unit may not function properly.

- 1** For safety, turn off the ignition key first.
- 2** Detach the front panel (See p.31).
- 3** Apply a little amount of alcohol to the cotton swab, and wipe the connectors softly.

CAUTION

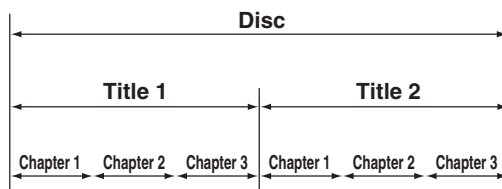
- Do not apply too much force, or connectors may be damaged.
- Do not touch the connectors directly with your fingers or with any metal device.

TERMINOLOGY

Title/chapter

The content programmed in DVD videos may be divided into large segments called titles. Within one title, there may be many smaller segments called chapters. The number representing each title is called the title number and the number representing each chapter is called the chapter number.

<Example>



Track

Song segments programmed in a CD are called tracks (representing 1 song). The number representing each track is called the track number.

Dolby Digital

This is the digital compression technology for sound developed by Dolby Laboratories. This technology provides 5.1 channel surround sound (front-center, front-left, front-right, left surround, right surround and low frequency effect for woofers). Connecting a device with built-in Dolby Digital decoder will create a truly realistic sound quality.

DTS

This is the digital sound system made for theaters developed by Digital Theater Systems, Inc. The audio uses 6 channels to create precise sound field localization and a realistic acoustic effect.

Aspect Ratio

This is the ratio of the screen's vertical and horizontal size. There are two types of aspect ratios: 4:3 (normal TV) and 16:9 (wide screen TV).

Letter box (LB)

This is one method of displaying a wide 16:9 aspect ratio image on a normal 4:3 aspect ratio TV. By horizontally compressing the wide image, its display is enabled even on a 4:3 TV screen at a normal ratio. A black band appears on the top and bottom of the screen.

Pan and scan (P&S)

This is one method to display a wide 16:9 aspect ratio image on a normal 4:3 aspect ratio TV. The wide image is cut on the sides to be displayed on a 4:3 TV.

Parental control

This is one of the functions found on a DVD video enabling its playback to be restricted in accordance with the parental control level set by the unit. The control method varies depending on the disc which may be set not to playback at all or to skip undesirable scenes.

* Some DVD videos may not be programmed with an parental control function. The playback of such discs cannot be restricted.

MAIN SPECIFICATIONS

MONITOR SECTION

Display Type	Wide LCD color monitor
System	TFT active matrix
Size	7 in.
Number of pixel	336,960 pixels

CD

S/N	80 dB
Frequency response	20 Hz – 20 kHz
Total harmonic distortion	0.05% (1 kHz)

TUNER SECTION

Receiving method	Double-conversion super-heterodyne system
Tuning range	FM 87.5 – 108.0 AM 531 – 1602
Sensitivity	FM 15 dB AM 32 dB
S/N ratio	FM 55 dB AM 45 dB
Separation	FM 25 dB
Harmonic distortion	FM 0.3% AM 0.5%

DVD

Reading format	Non-contact optical reading (using a semiconductor laser)
Frequency response	20 Hz – 20 kHz
S/N ratio	85 dB or more
Total harmonic distortion	0.2% or less (1 kHz)
Wow and flutter	Within or under the measurement limit

I/O TERMINAL

Inputs	24 pin power supply.....1 AUX3
Outputs	Front PRE out.....1 Rear PRE out.....1 Subwoofer (mono)2 Power antenna relay control lead ..1 Power amplifier control lead1 Rear Monitor OUT1

OTHER

Power source	DC 12 V
Dimensions	With monitor closed 178 x 50 x 185 mm (7 1/8 x 2 x 7 3/8 in.) (W x H x D)
Weight	Approx. 2,3 kg (5 lb 1 oz)

* Design and specifications are subject to change without notice.

TROUBLE SHOOTING (1)

You may think the unit is damaged at the occurrence of the slightest operational error or bad connection. Before requesting technical assistance, use the items below to check the unit. If abnormal functioning persists, stop using the unit and contact the store of purchase.

GENERAL

No power

- The power connection has not been made correctly.
→ Check the connection or check the fuse.
- The car does not have an ACC position.
→ Press **power** on the front panel.

Stored stations and correct time are erased.

- The fuse has blown.
→ Replace a fuse (p.87).

IMAGE

No image

- The connection has not been made correctly.
→ Check the connection.
- DIMMER is adjusted to maximum dark
→ Adjust the DIMMER (p.43).
- The disc is dirty or deteriorated.
→ Check the disc.
- The unit is installed at an angle of more than 30°.
- The unit is not installed in a sturdy part of the car.
- The parking cord is not connected to the parking brake switch cord, or the parking brake is not applied.

No image on the rear monitor

- The selected source/mode is not connected.
If there is no output, no image will be displayed on the rear monitor.
- When the front monitor displays the image of the rear view camera, no image is output into the rear monitor.

SOUND

No sound

- The connection has not been made correctly.
→ Check the connection.
- Volume is turned down to minimum.
→ Adjust the volume (p.37).
- Sound was cut off by MUTE button on the remote controller.
→ Press the MUTE again (p.37)

Sound skips

- The disc is dirty or deteriorated.
→ Check the disc.
- The unit is installed at an angle of more than 30°.
- The unit is installed in a sturdy part of the car.
- The setting for the outputs are not made correctly.

OPERATION

The operation buttons do not function.

- Press the Reset button.

The contents of the memory have been erased.

- The reset button has been pressed.
 - Store again into the memory.
- The power connecting lead is not connected correctly.
 - Check the connection.

The disc cannot be loaded.

- Another disc is already loaded.
- The ignition key switch of the car is set to the OFF position.

The unit does not initiate playback.

- No disc inserted or it is inserted up side down.
 - Reinsert correctly with the printed side upwards.
- Disc is dirty.
 - Wipe the dirt from the disc.
- Condensation present.
 - Remove the disc, wait a moment and proceed.
- Disc that cannot be read with this unit inserted.
 - Insert a disc that can be read by this unit.
- DVD video with a region number that does not correspond with the unit is inserted.
 - Use DVD videos with a corresponding region number.
- Parental control function enabled. Unit prohibits the playback of the DVD video.
 - Verify the parental control items at DVD setup.

MP3 files cannot be played.

- According to the ISO 9660 level 1 or level 2 format, or the Juliet or Romeo in the expansion format, recording was not performed.
- The MP3 file does not have the extension “mp3”.
- No file is stored in MP3 format.
- The unit cannot play files stored in MP3PRO format.
- The unit cannot play files stored in a format other than the MPEG1 Audio Layer 3.

MP3 file take longer to play back than others.

- The following discs take a longer time to start playback.
 - a disc recorded with a complicated tree structure.
 - a disc recorded in Multi Session.
 - a disc to which data can be added.

The JPEG files cannot be played.

- The JPEG files do not have the extension “.jpg”.
- No file is stored in JPEG format.
- The disc contains both MP3 and JPEG files.

The title of the MP3 audio album or track is not correctly displayed.

- The player can only display numbers and alphabet. Other characters are displayed as “ * ”.

The disc does not start playing from the beginning.

- Resume play is effected.

Playback stops automatically.

- While discs with an auto pause signal is playing, the unit stops playback at the auto pause.

Audio and video disturbance.

- Playback is proceeding where vibrations are emitted.
 - Exposing the unit to vibrations may cause the sound to skip or disturbance in the image. Normal operation returns when vibrations stop.

No subtitles

- DVD video being played back not programmed with subtitles.

Audio language/subtitle language doesn't switch.

- DVD video being played back only programmed with one language.
 - Discs without multiple languages programmed do not allow language switching.
- DVD video being played back prohibits language switching.

Audio language/subtitle language selected at DVD set up are not effectuated.

- You selected a language not programmed in the DVD video being played back.
 - Languages not programmed in the disc cannot be selected. Doing so will only initiate playback using one of the languages programmed in the disc selected at random.

Subtitles remain displayed.

- DVD video being played back prohibits the canceling of subtitles.

Angle cannot be switched.

- DVD video being played back prohibits angle switching.
- DVD video being played back only has one angle programmed or only some scenes are programmed with multiple angles.

Playback not initiated even after having selected a title and pressing the ENTER button.

- Parental control function enabled. The unit prohibits the playback of this DVD video.
 - Verify the PARENTAL SETTING items in DVD setup (p.68).

Playback enabled even after having set parental control.

- Parental control function not programmed in the DVD being played back.

DVD set up menu and DVD menu are displayed in a foreign language.

- Foreign language display set for initial settings.
 - Set the menu language to English and, if English is programmed into the disc, the DVD menu will be displayed in English.

Operation via remote controller is impossible

- Remote controller infrared transmitter not facing unit infrared receiver.
- Obstruction is between the remote controller and the unit.
- Remote controller battery is depleted.
→ Replace the battery (p.33).
- Remote controller battery is inserted incorrectly.
→ Check the +/– terminals and reinsert the battery correctly (p.33).

RADIO

The station cannot be received.

- Check the connection of the car antenna.
- Check the frequency.

Automatic tuning is not possible.

- The broadcast signal is too weak.
→ Perform manual setting.
- The DX mode is not set.
→ Set to **DX** (p.76).

During FM reception, the broadcast signal is too weak.

- Set to **MONO** (monaural) (p.76).

An FM program broadcast in stereo is heard in monaural.

- **MONO** (monaural) mode is set.
→ Set to **STEREO** (p.76).

The following messages appear during operation to give you hints about how to use the unit properly.

ON THE SCREEN

DISC ERROR

- Disc is inserted upside down.
→ Reinsert correctly with the printed side upwards.
- Disc is dirty.
→ Clean the disc.
- The disc cannot play because of some problem.
→ Insert another disc.

CAN NOT PLAY

- DVD with a region number that does not correspond with the unit is inserted.
- The disc is not compatible with this unit.

ON THE FRONT PANEL

ERR-1

- Disc is inserted upside down.
→ Reinsert correctly with the printed surface upwards.
- Disc is dirty.
→ Clean the disc.
- The disc cannot play because of some problem.
→ Insert another disc.

ERR-2

- DVD with a region number that does not correspond with the unit is inserted.
- The disc is not compatible with this unit.

DEFAULT SETTINGS LIST

SOUND	EQUALIZER	FLAT
	BALANCE	CENTER
	SUB WOOFER	8
DISPLAY	SIZE	FULL
	PICTURE	
	DIMMER	11 (ILM ON)/21(ILM OFF)
	BRIGHT	11
	CONTRAST	11
	COLOR	11
	SETTING	
	CLOCK	1:00
REAR	WALLPAPER	1
	REAR VIEW CAMERA	OFF
	Tilt Auto Close	ON
REAR	DVD	NTSC
DVD SET UP	LANGUAGE	
	AUDIO	1000 (ORIGINAL)
	SUBTITLE	1000 (ORIGINAL)
	MENU	1000 (ORIGINAL)
	AUDIO	
	DRC	OFF
	DOWNMIX	NORMAL
	DISPLAY	16:9
	LOCK	
	RATING	UNLOCK
	PASSWORD	1111
	COUNTRY CODE	US